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ABSTRACT

Access to higher education in countries that are members of the Organisation for Economic Co-operation and Development (OECD) is addressed. The following topics are considered: principles for quantitative planning of higher education, admission policies and the institutional framework, changing links between secondary and higher education, access of new groups and new forms of attendance, coordinating admission and financing policies, and structural and qualitative characteristics of recent changes in higher education. Quantitative planning seems to reflect a pragmatic response to changing economic, demographic, and social conditions. Trends in participation rates at the upper secondary level that help explain differences between countries in their approach and policies regarding access to higher education are examined, along with recent trends and reforms in admission policies in various OECD countries. Programs and institutions with different degrees of selectivity at entry are also considered. Attention is directed to the use of secondary school grades for selection purposes, along with special entrance examinations, and interviews. Additionally, the use of preferential treatment measures for selection among pools of qualified applicants is addressed. New groups of students are considered, along with the subjects they are studying, special admissions policies, and long-term issues related to new groups of students. The question of whether selection procedures are affected by student financial status is discussed, along with whether the way an institution is financed determines their selection procedures. The report of the Working Group on Access to Higher Education is appended. (SW)

POLICIES FOR HIGHER EDUCATION IN THE 80s

Intergovernmental Conference

12th-14th October 1981

Access to higher education

OCDE
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PARIS 1981

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14th October, 1981

INTERGOVERNMENTAL CONFERENCE ON POLICIES FOR HIGHER EDUCATION IN THE EIGHTIES

WORKING GROUP 1

ACCESS TO HIGHER EDUCATION

Chairman: Kjell Eide

Rapporteur: Geoffrey Squires

E.11939

ACCESS TO HIGHER EDUCATION

1. This is the report of the Working Group on Access to Higher Education. The Group drew both on the statement of issues in the Overview document and the much longer background document. The list of issues in the Overview (page 23) was used to structure the discussion, with two modifications: the first two issues were taken together, and the final issue to do with financing policies was treated as an aspect of all the other issues.

2. Access to higher education continues to be an issue of common and central concern in Member countries. It is a pressure point in higher education in policy terms; it is the point where demand, supply and resources intersect. The postponement of selection in secondary education in some countries means that questions of social equity now bear strongly on access to higher education; and yet higher education, partly because of its proximity to the job market, has to be selective. The current economic difficulties seem to sharpen the choices and conflicts involved.

3. While access is a matter of common concern, there are marked differences in the context in which it takes place from country to country; differences in the overall level of participation; differences in demographic trends; differences in political and policy objectives; differences in the timing and methods of selection. Such differences mean that the following comments are inevitably over-generalised, and should hence be treated with some caution.

4. There was a strong sense of the familiarity of some of the issues discussed, and a sense that no clear solution existed for some problems. Since some of these issues reflect differences in priorities rather than technical difficulties, this is perhaps inevitable. Access is to some extent a political matter. However, there was also a pragmatic sense that any

access policy, whatever its assumptions, has to find ways of accommodating the real-world demand made on it at any given time. In short, access policies could not, in reality, swing too far in any one direction, in terms of demand - or supply - orientation, or involve too abrupt quantitative changes in intake.

5. Access can be used as a means of dimensioning the higher education system as a whole i.e. setting targets and ceilings both generally and for specific parts of the system. Group members were loath to put figures on such targets; again the principles for quantitative planning seemed to reflect a pragmatic response to changing economic, demographic and social conditions. There was some discussion of historical cycles of "need" and provision, but "needs" are less empirical than might appear at first sight, and again the discussion revealed the ultimately normative or political nature of policies.

6. There was a good deal of discussion about the relationship between expansion and participation by different social groups. In some cases, it appeared that expansion had not altered the social distinction of intake much; in other cases, it had. In the former case, the resilience of the social distribution was attributed to factors deeply embedded in the school system.

7. However, one major change in intake has been the intake of new or non-traditional groups: more to some sectors, institutions and subjects than others. This phenomenon threw into question the previously monogamous relationship between higher education and secondary education; a relationship already strained by the tendency (in some countries) of the secondary system to insist more strongly on its own, self-sufficient objectives. These may or may not coincide with the objective of preparing students for entry to higher education and the whole question of "bottom-up" and "top-down" influences in the education system was aired several times. Reforms in higher education depend partly on reforms in secondary education, but the reverse is also true.

8. The advent of non-traditional students also has implications for curricula and teaching, and some members felt that the new groups either should or would lead higher education teaching to be more student-centred. There was some debate about the extent to which students are capable of choosing for themselves, but at a minimum, the intake of new groups opens up questions about the prescription and negotiation of curricula. There appeared to be little anxiety that the intake of non-traditional students, in general, had affected the quality or standards of achievement.

9. The discussion of new groups also concentrated on particular categories of student and their intake into particular subjects e.g. women into technical and science streams, and it was felt that this latter was a topic which merited further attention from OECD. It was pointed out that in some countries traditional students who postponed or diluted their attendance were an important and growing category. Foreign students were also briefly discussed though it was felt that they did not fall properly under the heading of 'new groups' and that they raised quite separate and different issues. By contrast, it was agreed that ethnic minority students were an important category of non-traditional student.

10. It was also pointed out strongly that the higher education system is now a <u>diverse</u> system, including as it does non-university institutions. The ability to pursue academic studies is not the only worthwhile kind of ability; vocational and practical talents are important. The general question of who decides who is qualified to proceed to higher education (of all kinds) was also discussed.

11. In most countries, there is differential access to different sectors, institutions or subjects. The theme of hierarchies within the system recurred several times, with some suggestion that current economic difficulties may sharpen such hierarchies. Some disquiet was expressed about hierarchies between different fields of study in particular.

12. As regards the swings in demand for different subjects, it was argued by some that the current crisis lies not in the humanities and social sciences, but in the lack of demand for technology, and to some extent natural sciences. Some members felt, however, that students were rather better at predicting job market fluctuations than educational planners. It was suggested that there should be more provision of information and guidance for students at all levels and ages; something easy to agree on, but difficult to implement and perhaps worthy of further study.

13. There was a general feeling that the traditional criteria for access (marks/grades) should be seen as one element in a more complete package of evidence. The latter might include, reports by teachers, relevant work experience, and the individual's own assessment of his "project" i.e. his likely future development.

14. Even greater emphasis was laid on the importance of allowing transfer between courses, avoiding educational blind alleys and in general keeping open educational routes at all stages. This reflected an underlying concensus as to the importance of recurrent educational opportunities.

15. As regards student financing, there was evidence in some countries of finance being used increasingly as a means of limiting demand, with obvious consequences for students from a less affluant background. The disparity between trends in opening up admissions regulations and limiting financial support was noted.

16. In general, the discussion involved the exchange of views and experience, rather than any drive towards conclusions. There was, however, a general sense of the plurality of factors that have to be kept in mind at all times in the operation of access policies, and perhaps a sense of pragmatism after the long theoretical debate that has been conducted on this

subject for some years now. Finally, it is worth noting that many of the points on which there was concensus entail not necessarily more costly, but certainly more complex systems: more complex to plan, administer and teach in. This complexity can perhaps be seen as a side-effect of progress but it also suggests a problem for students in interpreting the educational/employment environment they now find themselves in.

GENERAL DISTRIBUTION

Paris, September 1981

ACCESS TO HIGHER EDUCATION

General Report by the Secretariat

The present report has been prepared by the Secretariat under the Education Committee programme on Policies for Higher Education. Chapter V : "New Groups in Higher Education" has been written by Geoffrey Squires, and Chapter VI : "The Links between Finance and Admission Policies in Post-Secondary Education", by Maureen Woodhall, in their capacity as consultants to the Secretariat.

It is circulated for reference and information under the responsibility of the Secretariat.

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CHAPTER I

QUANTITATIVE TRENDS IN THE DEVELOPMENT OF HIGHER EDUCATION

The brief outline of quantitative trends in higher education presented in this Chapter is far from being exhaustive. More complete and detailed data on trends in the various sectors and levels of education will be taken up and analysed in another report, which will describe the main trends of educational policies in OECD countries(1).

Since these data were collected in order to show the specific characteristics of development, it is possible that they do not exactly tally with other information published by the OECD or other international organisations on the basis of standard international classification. The present analysis covers the period from 1965 to the most recent available year - usually 1977 or 1978. It is therefore possible that in some cases the trends observed up to that date are not the same as those emerging in more recent years.

Trend of student enrolments and the corresponding population age-group

In most of the countries examined, the high increase observed between 1965 and 1970 in total university enrolments or, when figures permit, in the number of those studying for a first degree - at an annual rate of more than 7.5 per cent in most countries and never less than 2.5 per cent - slowed down quite sharply during the following five-year period, since only four countries (Germany, Denmark, Spain and Yugoslavia) had an annual growth of 7.5 per cent or more and this rate was between 0.1 and 1.5 per cent in four others (France, the Netherlands, the United Kingdom for part-time students and Sweden). The year-to-year increase since 1975 shows that, exceptions aside, the slowdown of the expansion is continuing and the growth rate has even become negative in certain countries (e.g. Canada, Denmark); see Table 1.

It should also be noted that the trend in countries where a first degree can be taken in institutions other than universities (CAE(2) in Australia, other institutions in Denmark and the United States, "Grandes Ecoles" in France) is generally the same, although occasionally less pronounced.

In the few countries for which separate data are available for students taking a higher (postgraduate) degree, their number also rose rapidly until around 1975 and often more quickly than first degree enrolments; but after that date the increase slowed down or even, as in the United Kingdom for full-time studies, became a decline.

During the 1960s, many countries had created or developed alongside traditional university education new types of shorter higher education, often vocationally oriented and more open to categories of people who did not have the qualifications required

(1) For practical reasons, the study covers only the following countries: Austria, Australia, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Spain, Sweden, United Kingdom, United States and Yugoslavia.

(2) Colleges of Advanced Education.

for admission to universities or similar institutions. These new types of education were very successful and enrolments generally increased much more quickly than in the universities. Here too, the period of heavy growth seems to have ended and although after 1970 the increase was still greater in the non-university sector than in the university sector in certain countries (such as the United States, France and Greece), this was far from being the case everywhere, especially in more recent years.

One might have thought that this slowdown of the expansion was due to a drop in the size of the age-group corresponding to higher education. Table 2 gives the annual growth rates of the 20-24 age-group which, although not exactly coinciding with the real age of students, are nonetheless a valid basis for comparison, especially of trends. Yet it is a fact that the growth rate of this age-group is usually lower than that of the number of students, but not sufficiently so to account on its own for the slowdown of the expansion, although this was slower than appears from Table 1. However, the opposite phenomenon is beginning to appear in certain countries (the United States and Canada since 1975, Australia since 1977), where the 20-24 age-group is building up relatively more quickly than the number of students.

If we consider the demographic forecasts for the 20-24 age-group, which are also given in Table 2, we can see that, apart from exceptions - and the case of Japan is striking in this respect - this age-group will diminish in size in the next few years and has already begun to do so in some countries. This decline will continue for a fairly long time judging by the forecasts for the 15-19 age-group, whose growth rate during the period 1985-1990 is negative everywhere, except in Japan and to a smaller extent Sweden, and this will affect the 20-24 age-group from 1990 to 1995.

Consequently, if the tendency to reject higher education - or to find it apparently or really less attractive - continues, there may well be quite a sharp absolute drop in student numbers, with all the repercussions that this may have on institutions - especially the smaller ones - and on the number of teaching staff to be recruited or already employed.

Proportion of students taking a postgraduate university degree

As we have just seen, the fall in growth rates observed since the early 1970s affected all categories of students, whether they were taking a first degree or engaging in post-graduate studies, although this fall was not felt in the same way or at the same time. In view of this, as Table 3 shows, the proportion of postgraduate students in total university enrolments follows a different trend according to the country. In some countries, such as Australia, Canada (full-time students) and Sweden, this proportion is still rising very slightly, whereas in others, such as France in 1977 and the United Kingdom since 1975 for full-time students, it is falling. It is

relatively small in all of these countries, ranging in 1977 from 10.9 per cent in Canada to 17.2 per cent in the United Kingdom (full-time students in both cases). On the other hand, almost all part-time students in the United Kingdom and a rather larger proportion of part-time than of full-time students in Canada are at postgraduate level. In Denmark, it is difficult to distinguish among the students enrolled for long-cycle higher education between those taking a first degree and those engaging in postgraduate studies.

Proportion of part-time students

The proportion of students studying part-time is given for only three countries: Canada, the United States and the United Kingdom - Table 4. In all three cases, it amounts to a third or more of the total number of students (except for those taking a first degree in the United Kingdom, where it is under 2 per cent) and is tending to rise. It is higher for post-graduate students and, in the United Kingdom, for those in an institution of further education than for students enrolled in a university.

University and non-university education

It is certain that the differences between countries - even though the figures only concern a small number of these - are greatest as regards the distribution of students between these two types of higher education (Table 5). In France, about 17 per cent of all students are in non-university education, whereas this proportion is more than a third in the United States and half in the Netherlands for full-time students only. In the United Kingdom (England and Wales), it is falling quite sharply for part-time students, but still amounted in 1977 to slightly more than two-thirds. Similarly, while non-university students account for some 15 per cent of all fulltime students taking a first degree in England and Wales, this figure is 30 per cent in France and 43 per cent in Canada. There is no definite rising or falling trend in their proportion in the total number of students, except in Denmark - the change of classification made in 1977 makes it impossible to see whether the fall observed since 1965 continued - and Yugoslavia, where the drop is more constant for total students than if non regular students are excluded. This is also the case if we only consider students studying for a first degree.

New university entrants

The number of new entrants is even more sensitive than total numbers to variations in the demand for higher education - or in the supply of available places. In universities, during the period 1965-1970, their annual growth rate was high and generally higher than that for total students but, by the next period, from 1970 to 1975, this rate fell in most of the countries for which figures are available (Table 6). In half

of these, it dropped below the rates observed for total numbers. As a rule, this trend strengthened after 1975, indicating that the number of university student enrolments may fall in the next few years.

There are too few data on new non-university entrants for it to be possible to discern any clear trend, especially as new institutions are being created in this sector - much more than in the universities - and this has the effect of swelling the number of new entrants during their foundation year, thus distorting comparison with the year before or after. However, during the whole of the period from 1975 to the latest available year, the number of new entrants in this sector increased more quickly - or fell less quickly - than in university education in Germany, Denmark, France and Japan, while the opposite was the case in Australia and Yugoslavia, in particular.

Proportion of new entrants in non-university education

The figures in Table 7 showing the proportion of new non-university enrolments in relation to total new entrants confirm - at least for the countries given in this table - what was said above concerning the smaller relative success of this type of education compared with the 1960s. Indeed, during the last few years, this proportion has either remained appreciably the same (Canada, United States, Japan and Yugoslavia) or has dropped (Australia(1) and especially Germany, where it fell from 36 per cent to 26 per cent between 1965 and 1977.

Sex distribution of new entrants

So far, we have only considered the trend of total student numbers and observed that growth has been slowing down almost everywhere. Yet, side by side with this overall trend, there has been a rise in every country in the proportion of girls among new university entrants (Table 8). While this rise was particularly spectacular between 1965 and 1975, mainly in countries where female participation was lowest (from 19 to 30 per cent in the Netherlands and from 27 to 40 per cent in Germany, for example), it also occurred elsewhere and is continuing in the majority of countries, although at a slower pace. Around 1977, girls accounted for 40 per cent or more of all new entrants in university education in most of the countries examined.

The situation is somewhat different in non-university education, depending in particular on whether or not this level includes paramedical personnel and primary and preprimary teachers, who are mainly women. As a general rule, when female participation at this level was initially relatively small (as

(1) Not counting the TAFE (Technical and Advanced Education)

in Germany), it has tended to rise, but when it was large - more than half the total enrolments - it has either continued to increase at a slower rate (Australia, Canada, for example), or is falling slightly (Denmark).

These figures therefore show that alienation from higher studies affects males much more than females and that it mainly depends on the latter whether university enrolments will continue to increase or will dwindle more slowly than if females were to adopt the same attitude as males.

Choice of disciplines by new entrants

Since the choice of discipline is generally very different for male and female students, Table 9 gives the respective figures for each sex. Category 1, which includes arts, social sciences and education, accounts for more than half the total number of new university entrants in every country - except the United Kingdom. But while between 45 and 55 per cent of all male students chose these disciplines in the latest available year (the exceptions being Denmark, Spain and Sweden with over 60 per cent, on the one hand, and the United Kingdom with 31 per cent, on the other), this proportion was over two-thirds for females in most countries and 75 per cent in Australia, the Netherlands, Sweden and Yugoslavia (the exception being the United Kingdom with barely 50 per cent).

Since 1975 - or sometimes before then - there has been a certain decline in the choice of these studies in a few countries - Germany, Australia (mainly males), Austria and Italy (females). But this trend is far from being general and the opposite occurred in Spain, the Netherlands and Yugoslavia for female students.

On the other hand, when we turn to the science and technology category, we see that between 30 and 40 per cent of all male students enrol for these disciplines - nearly 50 per cent in the United Kingdom - but only some 15 per cent or less of all female students (except in the United Kingdom, over 20 per cent). The sex differential as regards choice of science studies is still greater for technology alone, where female participation is almost non-existent.

There is no clear trend regarding the relative attraction of these disciplines for students: in a few countries, slightly fewer males and slightly more females choose them than previously, but this is far from being a general rule.

In non-university education - according to the meagre information available, set out in Table 10 - roughly the same characteristics are found as in the universities: predominance of females in the tertiary sector, predominance of males in the technology subjects.

It would therefore seem that the tradition that some fields of study are more especially destined for girls and others for young men is as strong as ever.

Age distribution of new entrants

Age of entry into higher education varies substantially according to countries, depending first on age of entry into primary school and secondly on the length of primary and secondary schooling. These differences can be clearly seen from Tables 11 and 12, which show the total enrolment rate and the enrolment rate in higher education at 18 and 19 years of age. In Australia, some two-thirds of all 18-year-old students are already in higher education, while this proportion is still about 50 per cent in Canada, but is practically nil in Germany, Denmark and Sweden. At 19, the differences are less marked but still substantial: in Australia, Canada and the United Kingdom (for full-time education), most students are in higher education, whereas they are still in secondary school in Germany, Denmark and Sweden. Note - and this confirms what has been said earlier regarding young people's alienation from higher education - that, both at 18 and 19, the enrolment rate at this level of education has fallen since 1975 - or even before - in certain countries: Australia, the United Kingdom, Sweden and Germany for 19-year olds.

Owing to these differences in the internal organisation of the educational systems, the proportion of new university entrants aged 18 or under - Table 13 - which is 40 per cent or more in Australia and the United Kingdom, and also in Austria, Spain, Greece and France, is very small, not to say non-existent, in Germany and the Scandinavian countries. It is tending to fall in the United Kingdom and above all in Australia, but to rise or to remain appreciably the same in France, Greece and Spain. Few changes have been observed in the other countries. In every instance, girls go to university relatively earlier than boys.

The most interesting fact regarding age of entry to university is the rising proportion of older students (over 25) in every country (except Greece, but the figures stop at 1976). In Germany, Spain, Finland and probably Denmark and the Netherlands, although the trends observed up to 1975 have continued, this proportion is 15 per cent or more, which is far from negligible. In Sweden, where the government has taken steps to facilitate access to higher education for adults, especially those aged 25 or over and with 4 years' work experience, some 50 per cent of all students are over 25, nearly half of whom are covered by the 25/4 rule, but the figures stop at 1976 and we do not know whether this percentage has risen or not since then. Apart from Sweden and Australia, more "older" students are male than female.

Note that in Australia in the case of part-time education and the United Kingdom as regards further education, age of entry and the proportion of students over 25 are much higher - especially in Australia - than for full-time education or the university proper.

In non-university education - Table 14 - and for the four countries for which figures are available, the situation is less clearcut. Compared with the situation in the universities, the proportion of new young entrants - 18 and under - is smaller in Australia, France and Greece, but slightly bigger in Germany, while those aged 25 or over are also fewer, except in Australia for full-time study.

There may be two causes for the changing age of entry into higher education: first, secondary school leavers with the qualifications traditionally allowing them to enter higher education delay doing so and, secondly, new categories of people are now admitted to higher education. The scanty information given in Tables 15 and 16 throws some light on this problem, in spite of the small number of countries concerned.

Interval between leaving secondary school and entering higher education

Table 15 shows that the proportion of secondary school-leavers going into higher education immediately after obtaining their school-leaving certificate is very large in Australia (for full-time education), France and the Netherlands, but that this proportion is only slightly over 50 per cent for high school graduates in the United States, where it has fallen considerably since 1965. The drop also observed in Australia is not really sufficient on its own to justify the higher average age of entry into university mentioned in the last section. On the other hand, in France, the bigger proportion of secondary school-leavers going directly into higher education may explain the rising percentage of new students aged 18 or under.

Consequently, while both in the United States and Australia - especially for part-time study - the proportion of young people delaying their entry into higher education is rising rapidly, this is not at all the case in France.

School or other background of new entrants into higher education

The figures given in Table 16 give no reason - at least for the countries they concern - to believe that higher education as a whole has opened its doors wider to new categories of students. Indeed, except for Sweden and Denmark (mainly for the non-university level "Teknika") the great majority of new students consist of young people who have successfully completed their general secondary education. In fact, even technical secondary school-leavers are relatively thin on the ground, except in Italy; the "other" category, which probably includes new entrants - in cases where they do not form a separate

category - not possessing the traditional qualifications required, is very small. In France, which had introduced an examination for potential students with no baccalauréat together with facilities of access as part of the social advancement programme, the percentage of new entrants belonging to these categories, which was no more than 3.5 in 1975, fell to 1.2 in 1977 for the university sector (including IUT(1)) and remained appreciably the same, in the region of 2.5, for the IUT alone. Among all the countries studied, Sweden seems to be the only one in which measures taken to open the doors of higher education to new categories of students have been effective. Priority students and those covered by the 25/4 rule accounted in 1976 for over 30 per cent of the total number of new university entrants, while the proportion of "Gymnasium" graduates fell from 86 per cent in 1968 to 54 per cent in 1976. However, the trend appears to have been reversed slightly since 1976, with a relative rise in traditional students and a decline in other categories.

Rates of transfer from secondary to higher education

Since, as we have just seen, secondary school-leavers still form the bulk of new entrants in higher education in most countries, it seemed interesting to show in Table 17 the figures - for the few countries in which they are available - of the rates of transfer from secondary to higher education. It will be noted that in countries where secondary education is selective, i.e. where only a small part of an age-group will follow and successfully complete the type of schooling giving access to higher education, rates of transfer are very high - between 75 and 85 per cent - as in France, the Netherlands and the United Kingdom for pupils with at least three A-level passes. On the other hand, these rates are lower - 50 to 60 per cent - in countries where secondary education is comprehensive - such as Canada and the United States. Moreover, entry into the university or non-university sector depends very much on the type of certificate obtained, judging by the case of France, where holders of a technician's baccalauréat are not only much less likely to go onto higher studies than their peers with a general baccalauréat but, when they do so, go mostly to the non-university sector. Similarly, in the United Kingdom, for more of the pupils with the best results - especially males - go to university (66 per cent males, 55 per cent females) than to further education (15 per cent males, 23 per cent females), whereas the opposite is the case for less successful pupils, although the rate of transfer has tended to fall since 1970 for pupils with at best only one A-level pass.

In France, the rates of transfer both for holders of a general baccalauréat and a technician's baccalauréat are rising, while they are falling in Canada, Denmark (but the figures stop at 1975), the Netherlands and the United Kingdom.

To conclude this short quantitative outline of trends in higher education, the number of secondary school-leavers going directly into higher education appears to be falling relatively in certain countries at least, while the proportion delaying

(1) Instituts universitaires de technologie.

their entry until later is rising; however, these two trends do not offset each other, and since higher education has not opened its doors significantly - apart from exceptions - to other categories of people, the number of new entrants and therefore the total number of students are falling - in both the university and non-university sectors. This relative decline has every chance of becoming - and has already done so in certain cases - an absolute decline when combined with the dwindling size of the population age-groups corresponding to higher education.

ANNEX

STATISTICAL TABLES

TABLE 1

ANNUAL GROWTH RATE OF UNIVERSITY (U) ENROLMENTS ACCORDING TO DEGREE STUDIED AND NON-UNIVERSITY (NU) ENROLMENTS IN HIGHER EDUCATION

Percentage

	1965-70	1970-75	1975-76	1976-77	1977-78	1978-79
GERMANY FT						
U	8.9	11.0	3.5	3.6	3.6	
NU		3.2	7.6	4.9	3.5	
AUSTRALIA						
U 1st degree	6.0	4.2	3.7	2.2	1.3	
Master		9.9	5.1	5.7	3.1	
Doctorate		2.7	6.0	3.8	5.5	
Not studying for a degree	4.5	4.6	2.6	6.8	- 4.8	
CAE 1st degree			23.0(1)		17.7	10.7(2)
Master			29.0(1)		40.0	25.0(2)
Postgraduate degree			18.0(1)		18.8	15.0(2)
Diploma and associate diploma			- 3.5(1)		- 3.9	- 8.0(2)
AUSTRIA						
U					10.8(3)	
CANADA FT						
U 1st degree	8.1	3.7	1.5	- 0.7		
Postgraduate degrees		3.8	1.2	0.2		
PT						
U 1st degree	16.8	2.3(4)		12.1		
Postgraduate degrees				3.2		
NU	11.9					
DENMARK						
Universities	9.3	7.5	4.7	- 1.7	- 5.5(5)	
Other institutions	11.5	5.0	10.8	3.8	- 2.6(5)	
NU	4.2	4.9	- 3.5	- 2.5	- 2.7(5)	
SPAIN						
U and NU	7.2	18.4	8.5	17.4		
UNITED STATES						
Universities	2.8(6)	3.9(7)	- 2.0	0.5		
Other institutions 4 years U	3.5(6)	5.1(7)	- 0.6	2.3		
Institutions 2 years NU	8.3(6)	14.9(2)	- 2.2	4.1		

(1) 1975-77.
(2) 1978-80.
(3) 1974-78.
(4) 1970-76.
(5) According to the new classification by level of studies: long, medium and short-cycle higher education.
(6) 1968-73. Students studying for a degree only.
(7) 1973-75.

TABLE 1 (Cont'd)

Percentage

	1965-70	1970-75	1975-76	1976-77	1977-78	1978-79
FRANCE(8)						
U 1st and 2nd cycles	9.4(9)	1.5(10)	1.5	2.2	2.0	
3rd cycle	10.3(9)	18.3(10)	0.6	- 0.3	1.4	
Grandes Ecoles	4.1	16.4	- 6.3	2.7		
NU	7.4	7.0	0.4	9.6	0.4	
GREECE						
U	5.9	5.7	+ 0.4	1.7		
NU	6.9	9.5	26.9	-18.0		
ITALY						
U	11.0	6.5	4.9			
NETHERLANDS						
U	9.9	0.3(11)	5.9(12)	6.3	4.3	6.7
NU FT		8.7(11)	10.4(12)	4.7	4.7	2.2
NU PT		- 0.1(11)	3.4(12)	3.1	- 0.5	..
UNITED KINGDOM FT						
U 1st degree(13)	2.5(14)	2.5(15)	4.6	4.5		
Postgraduate	5.7(14)	3.4	0.6	- 2.7		
NU (England and Wales)(16)	8.7(14)	- 0.5	8.6	4.9		
PT						
U 1st degree(12)	- 5.3(9)	0.5(10)	- 0.1	9.4		
Postgraduate(12)	15.7(9)	3.2(10)	4.5	4.2		
NU (England and Wales)(16)	- 1.0	3.3	0.9	0.2		
SWEDEN						
U 1st degree		0.1(17)				
Postgraduate		2.5(17)				
YUGOSLAVIA						
U	8.6(18)	9.1(19)	4.9	6.5		
NU	3.2(18)	7.6(19)	- 1.4	0.3		
U Regular students only	10.0(18)	6.9(19)	4.4	6.9		
NU	5.2(18)	1.8(19)	15.8	2.4		

(8) For 1965 and 1971, the Grandes Ecoles do not cover all the institutions subsequently included.
(9) 1965-71.
(10) 1971-75.
(11) 1971-74.
(12) 1974-76.
(13) Universities only.
(14) 1968-71.
(15) 1971-75.
(16) Including evening classes.
(17) 1970-76.
(18) 1965-69.
(19) 1969-75.

FT = full-time; PT = part-time.

TABLE 2

ANNUAL GROWTH RATE OF THE 20-24 AGE-GROUP

Percentage

	Observed					Forecast			15-19 age-group
	1965-70	1970-75	1975-76	1976-77	1977-78	1978-80	1980-85	1985-90	1985-90
GERMANY	- 0.5	1.3	0.9	1.6	2.6	1.6	2.4	- 1.3	- 8.4
AUSTRALIA	5.1	1.5	0.4	1.2	1.6	0.6	0.7	0.5	- 0.1
AUSTRIA	- 0.6	0.6	1.4	3.9	2.1	1.2	2.7	- 2.3	- 3.8
CANADA	5.7	2.7	2.7	3.0	2.3	0.8	0.6	- 3.4	- 1.3
DENMARK	- 0.6	- 0.3	- 0.5	0.3	0.3	0	1.3	0	- 1.3
SPAIN	2.9	1.0	2.2	2.3	0.9	2.1	1.0	0.3	0.3
UNITED STATES	4.6	2.3	2.1	2.3	1.8	1.2	- 0.4	- 2.6	- 1.4
FINLAND	5.5	- 1.2	- 1.3	- 1.6	- 3.7	- 0.8	- 0.4	- 1.8	- 3.1
FRANCE	7.2	1.0	- 0.8	- 0.2	- 0.2	0.1	0.2	- 0.6	- 0.3
GREECE	1.6	0.1	2.1	1.1	2.0	1.7	0.4	1.0	- 1.6
JAPAN	3.3	- 3.2	- 4.7	- 4.3	- 2.2	- 1.3	0.7	1.9	2.2
ITALY	← 0.9 →		- 0.1	1.3	1.3	- 2.0	1.8	0.3	- 1.1
NETHERLANDS	5.3	- 0.9	0.9	0.9	0.9	1.2	1.1	- 0.5	- 3.1
UNITED KINGDOM	3.8	- 2.4	0.8	1.3	1.3	2.0	2.3	- 0.7	- 2.7
SWEDEN	2.6	- 3.5	- 0.7	0.2	- 0.7	0	1.0	0.5	- 1.0
YUGOSLAVIA		3.2	0.9	- -	- -	1.0	- 1.6	- 0.5	- 0.3

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TABLE 3.

STUDENT DISTRIBUTION ACCORDING TO LEVEL OF DEGREE STUDIED (UNIVERSITY EDUCATION)

Percentage

	1965	1970	1975	1976	1977	1978	1979
AUSTRALIA							
U 1st degree	84.4	82.1	81.0	80.9	80.4	80.5	
Master	7.1	6.5	7.9	8.0	8.2	8.4	
Doctorate		3.6	3.4	3.4	3.5	3.6	
Not studying for a degree	8.5	7.8	7.7	7.7	7.9	7.5	(1980)
CAE 1st degree			30.8		40.7	44.8	51.6
Master			0.2		0.4	0.5	0.7
Postgraduate degree			6.9		8.3	9.3	11.5
Diploma and associate			62.1		50.6	45.5	36.2
CANADA FT							
1st degree		89.3	89.2	89.2	89.1		
Postgraduate		10.7	10.8	10.8	10.9		
PT							
1st degree				85.5	86.5		
Postgraduate				14.5	13.5		
DENMARK(1)							
Long higher					70.4	69.8	
Medium higher					29.6	30.2	
FRANCE(2)							
1st and 2nd cycles	76.3	78.8	67.4	68.3	68.6		
3rd cycle	9.7	10.5	16.6	16.7	16.3		
Grandes Ecoles	14.0	10.8	16.0	15.0	15.1		
UNITED KINGDOM(3)							
1st degree FT	82.3	81.0	81.1	81.7	82.8		
Postgraduate FT	17.7	19.0	18.9	18.3	17.2		
1st degree PT	36.9	15.7	14.4	13.9	14.6		
Postgraduate PT	63.1	84.3	85.6	86.1	85.4		
SWEDEN							
1st degree		91.5		90.3			
Postgraduate		8.5		9.7			

(1) As students were classified by institution before 1977, it is not possible to make any distinction between long and medium higher education.

(2) For 1965 and 1970, the "Grandes Ecoles" do not cover all institutions subsequently included.

(3) Universities only.

TABLE 4

PART-TIME STUDENTS AS A PERCENTAGE OF TOTAL STUDENTS

Percentage

	1965	1970	1975	1976	1977	1978	1979
CANADA							
1st degree	25.9	34.0		32.7	35.4		
Postgraduate				40.6	41.3		
UNITED STATES							
Total		32.2	38.8	39.0	39.8	41.3	
UNITED KINGDOM							
Universities, 1st degree	2.7(1)	4.9	1.7	1.6	1.7		
Universities, Postgraduate	30.4(1)	30.4	30.7	32.1	33.2		
Further education (advanced)	37.7(1)	33.6	34.7	36.2	39.3		

(1) 1968.

TABLE 5

NON-UNIVERSITY (NU) HIGHER EDUCATION ENROLMENTS
AS A PERCENTAGE OF TOTAL HIGHER EDUCATION
ENROLMENTS (T) AND OF THE
NUMBER OF (D) STUDENTS 1st-DEGREE

Percentage

	1965	1970	1975	1976	1977	1978	1979
GERMANY							
NU/T	22.8(1)	25.2	19.2	19.8	20.0	20.0	
CANADA							
NU/T FT		27.7					
NU/D FT		43.0					
DENMARK							
NU/T	43.5	36.7	35.0	32.7	21.3(2)	21.7	
UNITED STATES							
NU/T		18.3(3)	35.5	35.3	35.8		
FRANCE							
NU/T	16.6	15.5	16.3	16.4	17.4	—	
NU/D	26.1	23.4	28.9	28.6	30.7	30.2	
GREECE							
NU/T	15.4	16.1	18.7	22.6	19.1		
NETHERLANDS							
NU(4)/T		54.4	56.7	57.6	55.7	56.8	
NU(5)/T		41.7	45.5	47.6	47.2	47.3	46.2
UNITED KINGDOM (England and Wales)							
NU/T FT	11.1	11.9	10.6		11.9		
NU/D FT	14.0	15.5	13.7		15.6		
NU/T PT	83.6	73.6	73.4		67.1		
YUGOSLAVIA							
NU/T(6)	37.2	32.5	30.7	29.4	28.2		
NU/T(7)	25.9	22.6	17.9	19.5	18.8		

(1) Excluding students in specialised technical schools.

(2) As from 1977, students are no longer classified by type of institution but by level of study; the percentages for 1977 would have been as follows according to the old classification: T: 32.0, M: 22.2, F: 42.6.

(3) 1968.

(4) FT and PT.

(5) FT only.

(6) All students.

(7) Regular students only.

FT = Full-time PT = Part-time

TABLE 6

ANNUAL GROWTH RATE OF THE NUMBER OF NEW ENTRANTS IN UNIVERSITY (U) AND NON-UNIVERSITY (NU) HIGHER EDUCATION

Percentage

	1965-70	1970-75	1975-76	1976-77	1977-78	1978-79	1979-80
GERMANY(1)							
U	11.6	11.1	4.9	- 1.1	6.4		
NU	4.4	2.7	15.5	- 1.6	1.9		
AUSTRALIA							
University		20.5(2)	1.2	- 1.9	3.0		
CAE (Diploma/ Associate diploma)				-11.6(3)	2.9		- 7.7(4)
AUSTRIA							
University			1.0(5)		10.5(6)		
CANADA							
U		3.6(7)	2.8				
NU		5.6(7)	0.8				
DENMARK							
U	7.7(8)	8.7(8)	0.6	-18.6(9)			
NU			9.5	- 1.3			
SPAIN							
Total higher education		13.6(10)	4.5	8.4			
UNITED STATES							
U	1.6	- 0.4	0.3				
NU	10.3	1.3	0.3				
FINLAND							
U	- 1.0	5.5		- 2.2(3)			
NU	3.6	3.1					
FRANCE							
U		6.9(10)	- 1.7	0.1	1.7		
NU (IUT and higher technicians)		10.2(7)	1.9	10.4	4.1		
ITALY							
University	13.0	4.5	- 0.1				
JAPAN							
U	5.9	4.9	- 0.8	1.9	- 0.6	- 4.3	
NU	9.5	6.7	- 0.1	4.9	- 1.1	- 2.3	
NETHERLANDS							
University(11)	7.9		5.2	8.5	- 0.5		
UNITED KINGDOM							
Universities	3.3(12)	3.0	3.1	4.7			
SWEDEN							
University		- 0.3	8.1				
YUGOSLAVIA (First-year students) (All students)							
U	8.6(13)	7.8(14)	0.3	5.1			
NU	2.0(13)	8.9(14)	- 3.6	- 1.4			

(1) Excluding foreign students in 1965.
(2) 1973-75
(3) 1975-77
(4) 1978-80
(5) 1972-74
(6) 1974-78
(7) 1971-75
(8) 1966-70 and excluding institutions of this type other than universities.
(9) 1966-70 and excluding institutions of this type other than universities and according to the classification by institution and not by level of study adopted in 1977.
(10) 1965-75
(11) Dutch students only as from 1975
(12) 1968-70
(13) 1965-69
(14) 1969-75

TABLE 7

NEW ENTRANTS IN NON-UNIVERSITY HIGHER EDUCATION AS A PERCENTAGE OF TOTAL NEW ENTRANTS IN HIGHER EDUCATION(1)

Percentage

	1965	1970	1975	1976	1977	1978	1979
GERMANY	35.6	32.3	24.3	26.1	26.0		
AUSTRALIA(2)			35.1		27.5	26.6	
CANADA		33.6	35.3	34.9			
DENMARK			44.6(3)	46.7(3)	32.7(4)		
UNITED STATES	27.8	36.7	38.7	38.7			
FINLAND	36.3	41.5	38.7				
FRANCE(5)			20.7	21.4	23.0	23.4	
JAPAN	24.4	27.6	29.2	29.4	30.0	29.9	30.3
YUGOSLAVIA(6)	47.9	41.7	43.2	42.3	40.7		

(1) Or the nearest year to that mentioned.

(2) Students beginning to study for a "diploma" or an "associate diploma" in a CAE as a proportion of total students starting these diplomas or a bachelor's degree in a CAE or university.

(3) According to the classification by institution.

(4) According to the classification by level of study.

(5) IUT and higher technicians; including the engineering Grandes Ecoles in the university sector.

(6) Regular and not regular students.

TABLE 8

PROPORTION OF WOMEN AMONG NEW ENTRANTS INTO UNIVERSITY (U) AND NON-UNIVERSITY (NU) HIGHER EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978	1979
GERMANY							
U	27.0	40.1	39.6	36.7	40.5	38.6	40.8(P)
NU			25.3	26.0	29.6	30.6	32.3(P)
AUSTRALIA FT and PT							
Universities		38.7(1)	40.9	41.4	42.2	43.4	
CAE (Bachelor)		24.7(2)	26.8		36.6	38.7	
CAE (diploma, associate diploma)			58.5		61.3	63.2	
AUSTRIA		(1972)	(1974)				
U		37.8	44.0			47.0	
CANADA							
U		43.0	46.0	46.1			
NU		50.5	57.5	57.7			
DENMARK	(1966)						
U	32.0	35.2	40.2	41.8	41.0		
NU			71.4	71.1	69.5		
SPAIN							
U		28.1	38.8	38.8	39.6		
UNITED STATES							
U	43.5	45.9	47.6	47.7			
NU	39.8	42.6	45.8	45.8			
FINLAND							
U	50.8	47.1	51.6	51.6	51.5	51.1	
NU	56.3	62.0	65.8				
ITALY							
U		36.5	40.6	41.5			
GREECE							
U	34.7	31.4	39.2	39.6			
NU			36.4	34.8			
NETHERLANDS							
U	19.0	21.6	30.4	31.2	32.1	33.3	
UNITED KINGDOM	(1968)						
Universities	29.8	31.9	35.2	35.6	36.2		
SWEDEN							
U		41.4	46.9	47.9			
YUGOSLAVIA		(1969)					
U	35.9	38.5	40.0	39.0	38.4		
NU	35.6	42.5	38.3	37.7	37.4		

(1) 1973
(2) 1971

FT = full-time
PT = part-time

TABLE 9

DISTRIBUTION OF NEW ENTRANTS IN HIGHER EDUCATION
BY FIELD OF STUDY

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY												
Arts, social sciences, education	50.8	71.6	50.2	83.6	48.5	70.6	47.6	70.9	46.2	68.2	47.6	67.8
Science	14.9	10.1	22.4	10.0	20.8	14.2	19.4	14.2	19.3	14.5	19.0	14.9
Technology	15.6	0.9	16.1	0.5	17.5	1.2	20.0	1.5	19.7	11.5	18.6	1.3
Medicine	16.2	16.5	5.0	4.1	5.7	4.8	6.0	5.7	7.0	6.6	7.0	6.5
Other	2.4	0.9	5.3	1.7	7.5	9.2	7.0	7.6	7.7	9.2	7.7	9.6
			1973									
AUSTRALIA(1)												
Arts, social sciences, education			50.7	74.5	58.7	77.4	56.0	76.4	55.6	77.1	51.4	75.9
Science			20.5	16.8	19.6	13.6	19.8	14.6	20.4	14.1	20.3	15.2
Technology			14.5	0.5	12.2	0.5	11.8	0.4	11.7	0.4	12.1	0.7
Medicine			7.9	6.9	5.9	6.1	6.3	5.7	6.6	5.7	6.6	5.3
Other			5.5	2.4	5.6	2.4	6.0	2.9	5.6	2.6	5.0	2.8
			1972		1974							
AUSTRIA												
Arts, social sciences, education			55.4	76.5	52.9	72.5					45.8	64.5
Science			..	..	..	..					8.3	9.7
Technology			25.0	5.9	27.5	5.0					22.2	3.2
Medicine			14.9	17.6	15.7	20.0					15.3	19.4
Other			5.4	-	3.9	2.5					8.3	3.2
	1966											
DENMARK(2)												
Arts, social sciences, education	39.3	68.4	41.6	64.2	59.1	74.4			62.5	73.2		
Science	13.0	9.0	13.3	7.4	13.7	5.6			9.5	5.1		
Technology	19.7	1.5	16.9	2.8	9.9	1.1			16.9	3.0		
Medicine	18.5	18.9	14.5	18.1	11.0	15.6			4.7	12.7		
Other	9.5	2.3	13.6	7.5	6.3	3.3			6.5	6.0		
SPAIN (Universities and University colleges)												
Arts, social sciences, education					53.0	54.1	55.4	56.2	59.7	58.9		
Science					18.5	15.6	17.2	13.5	16.8	13.7		
Technology					-	-	-	-	-	-		
Medicine					27.0	29.7	25.6	29.9	21.2	26.5		
Other					1.7	0.7	1.7	0.5	2.2	0.9		
SPAIN (Other higher education)(3)												
Arts, social sciences, education					26.1	81.9	27.6	81.4	31.9	82.4		
Science					-	-	-	-	-	-		
Technology					26.2	5.0	21.5	4.1	21.8	4.6		
Medicine					-	-	-	-	-	-		
Other					47.7	13.2	50.9	14.5	46.4	13.0		
FINLAND												
Arts, social sciences, education		65.7	48.0	74.8	49.9	71.5	..	70.9		59.8		
Science		18.6	23.7	15.8	18.5	15.4	..	16.4		31.0(4)		
Technology		8.8	19.3	2.3	21.8	3.9	..	4.1		-		
Medicine		3.9	5.0	4.1	5.5	6.1	..	5.4		7.3		
Other		3.0	4.0	3.0	4.5	3.0	..	3.1		1.9		

(1) Students starting a first degree.
(2) According to the classification by institution up to 1976 and by level of study for 1977.
(3) Except postgraduate education.
(4) First-year students.

DISTRIBUTION OF NEW ENTRANTS IN HIGHER EDUCATION BY FIELD OF STUDY (Cont'd)

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
FRANCE (Universities)												
Arts, social sciences, education	56.3				60.7		59.9		59.3		59.3	
Science	28.3				13.8		14.7		15.5		15.9	
Technology	–				–		–		–		–	
Medicine	12.0				13.6		13.9		12.5		11.3	
Other	3.4				12.0		11.4		12.6		13.5	
ITALY(4)												
Arts, social sciences, education	61.7		45.5	74.5	44.2	64.3	45.1	62.8				
Science	14.1		15.0	13.5	12.1	17.2	11.6	17.2				
Technology	13.3		21.1	2.8	21.5	4.0	21.1	4.4				
Medicine	7.0		14.3	6.8	15.6	11.1	14.7	11.3				
Other	3.9		4.1	2.4	6.6	3.6	7.5	4.4				
NETHERLANDS(4)												
Arts, social sciences, education	46.3	69.2	51.0	70.1	50.7	77.0	51.9	77.4	52.2	78.3	52.4	79.3
Science	14.0	10.6	13.1	9.8	14.9	7.7	14.5	7.6	14.8	7.4	13.7	6.9
Technology	22.0	2.1	21.9	2.9	18.5	1.8	18.7	1.6	19.7	1.9	20.0	2.3
Medicine	14.2	15.3	10.5	13.4	10.4	9.1	9.4	9.1	8.1	8.5	8.5	7.6
Other	3.4	2.9	3.5	3.8	5.5	4.4	5.4	4.4	5.1	3.8	5.4	3.9
UNITED KINGDOM (Universities)	68/69											
Arts, social sciences, education	29.2	52.3	28.5	47.9	31.9	49.7	31.2	49.5	31.0	49.8		
Science	30.0	24.6	28.9	22.4	26.0	19.9	26.0	19.7	26.1	20.0		
Technology	23.1	0.9	23.1	1.3	21.5	1.7	22.4	2.0	22.9	2.3		
Medicine	8.5	8.1	8.8	9.2	9.2	9.9	8.9	9.9	8.6	10.1		
Other	9.2	14.0	10.8	19.2	11.6	18.8	11.4	18.8	11.5	17.7		
SWEDEN												
Arts, social sciences, education	59.6	82.8	67.2	84.7	65.1	84.5	66.4	84.6				
Science	21.1	10.3	17.4	7.1	13.8	6.4	12.8	6.4				
Technology	13.5	0.9	11.5	1.3	15.4	1.9	15.3	2.3				
Medicine	3.9	5.2	2.5	3.6	3.8	4.2	3.7	3.6				
Other	1.8	0.8	3.4	3.3	1.9	3.1	1.8	3.1				
YUGOSLAVIA(4)			1969									
Arts, social sciences, education	42.1	58.2	49.3	64.1	53.6	71.4	52.4	71.8	50.1	75.2		
Science	7.4	9.9	5.4	8.6	5.5	6.6	5.5	6.3	5.2	6.1		
Technology	35.2	15.1	34.0	12.5	30.0	9.5	31.7	9.5	33.2	9.5		
Medicine	6.0	11.5	3.9	8.3	3.5	7.8	3.2	7.8	3.4	7.6		
Other	9.4	5.3	11.2	6.4	7.5	4.7	7.3	4.5	8.2	4.6		

(4) First-year students.

TABLE 10

DISTRIBUTION OF NEW ENTRANTS IN NON-UNIVERSITY HIGHER EDUCATION BY FIELD OF STUDY

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY												
Technology	96.4	45.5	96.5	86.3	95.4	89.6	95.7	89.5	95.4	89.8	94.4	89.9
Art, music, sport	3.1	54.5	3.5	13.7	4.6	11.5	4.3	10.5	4.6	10.2	5.3	10.1
AUSTRALIA (CAE)(1)												
Arts, social sciences, education					74.7	88.7			70.1	84.9	65.2	83.6
Science					1.7	0.1			1.3	0.2	4.1	2.2
Technology					5.4	0.1			4.4	0.0	4.3	0.0
Medicine					0.9	2.9			4.4	6.0	4.3	5.8
Other					17.3	8.2			19.9	8.9	22.0	9.0
DENMARK												
Arts, social sciences, education					46.3	54.7	59.7	51.4	29.0	67.9		
Science					8.6	0.1	23.6	0.2	31.0	1.4		
Technology					12.0	44.4	10.7	47.7	4.8	28.8		
Medicine					3.0	0.8	6.0	0.7	35.2	1.8		
Other												
FINLAND												
Arts, social sciences, education	28.4		29.2		26.9							
Science	27.1		27.7		30.3							
Technology	41.7		39.0		39.4							
Medicine	2.7		4.0		3.5							
Other												
FRANCE												
Higher technicians IUT			43.6		51.9		45.3		45.6		48.2	
Primary teacher training colleges			56.4		48.1		39.3		40.8		41.8	
			..		..		15.4		13.6		9.9	
YUGOSLAVIA(2)			1969									
Arts, social sciences, education	70.3	89.5	63.7	85.8	63.0	83.4	65.2	83.0	67.2	82.7		
Science	25.9	5.0	31.8	7.8	34.5	9.3	31.9	8.5	29.8	8.0		
Technology	1.3	5.0	1.0	5.6	1.1	6.7	0.9	7.6	0.9	8.4		
Medicine	2.5	0.5	3.6	0.9	1.4	0.6	2.0	0.9	2.1	0.9		
Other												

(1) Students starting a degree or diploma.
(2) First-year students.

TABLE 11

ENROLMENT RATES AT 18 BY TYPE OF EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978	1979
GERMANY							
Secondary, 1st cycle	0.4	0.2	0.6	0.7	0.7	0.9	1.0
Secondary, 2nd cycle(1)							
- general	9.0	10.7	15.1	15.1	15.0	15.3	17.8
- technical/vocational FT	1.4	2.9	..	6.0	6.1	6.6	7.3
" " PT	25.0	27.8	..	34.4	36.6	39.0	43.3
Higher							
- University	0.0	0.9	0.7	0.6	0.7	0.7	..
- Non-university	0.1	0.3	0.4	0.4	0.3	0.2	..
Total(2)	35.9 (10.9)	42.8 (15.0)		57.2 (22.8)	59.4 (22.8)	62.7 (23.7)	
AUSTRALIA(3)							
Secondary, 1st cycle	0.2	-	-				
" , 2nd cycle	4.9	7.6	6.7				6.6
Higher							
- Universities	..	7.2	7.5				6.6
- CAE	..	1.9	6.8				6.3
Total		16.7	21.0				19.5
AUSTRIA							
Secondary							
- general and teacher training			8.9	9.6	6.8		
- technical/vocational FT and PT			28.4	28.8	34.1		
Higher			..	4.3	4.1		
Total				42.7	45.0		
CANADA		(1971)					
Secondary		27.3	23.7		20.9		
Post-secondary		16.5	19.3		19.4		
Total		43.8	43.0		40.3		
DENMARK							
Basic school					1.1		
Secondary, 2nd cycle							
- general					22.7		
- technical/vocational					30.3		
Higher							
- short					0.3		
- medium					0.1		
- long					0.4		
Total					55.5(4)		
SPAIN							
Secondary, general and teacher training	5.1	7.8	9.9	11.5	10.8		
Technical/vocational	2.2	4.9	5.8	6.4	7.6		
Other secondary	0.6	1.5	1.8	1.9	1.4		
Higher	3.0	5.2	11.2	13.2	14.5		
Total	10.9	19.4	28.7	33.1	34.2		
FRANCE							
Secondary, 1st cycle	0.5	0.1	0.1	0.1			
Short vocational	3.5	5.1	5.8	5.8			
Secondary, 2nd cycle	16.9	17.8	17.7	18.0			
Higher technicians	0.6	0.6	0.8	1.0			
Universities(5)	4.9	..	9.1	9.4			
Total	26.4		33.5	34.3			

FT = full-time

PT = part-time

(1) Including certain pupils still in the 1st cycle.

(2) The first figure refers to total full-time and part-time education and the figure between brackets to full-time education only.

(3) Excluding apprenticeship and the TAFE.

(4) Including some 200 pupils not distributed by level.

(5) Including the preparatory classes for the Grandes Ecoles.

TABLE 11 (Cont'd)

Percentage

	1965	1970		1975		1976		1977		1978		1979
GREECE												
Secondary, general		13.0		14.2								
" , technical/vocational		8.5		11.3								
Non-university		2.4		2.1								
University		5.2		7.3								
Total		29.1		34.9								
ITALY	(1966)											
Secondary, general and teacher training	7.7											
Technical and vocational	12.4			32.9								
NETHERLANDS		G	F	G	F	G	F	G	F	G	F	
1st cycle secondary												
- general		2.4	1.4	2.6	1.7	3.1	2.1	3.2	2.1	3.1	2.2	
- vocational		3.0	0.3	3.9	0.5	5.9	1.2	5.9	1.4	5.6	1.5	
2nd cycle secondary												
- general		13.5	6.6	16.2	10.2	17.4	11.7	17.6	12.2	17.5	12.9	
- vocational/technical		10.9	6.2	13.2	7.3	15.1	9.0	15.7	11.3	15.9	12.9	
Higher												
- university		4.3	1.4	3.5	1.7	..	..	..	..	3.9	2.0	
- non-university		4.9	4.9	5.7	5.4	5.9	6.1	5.8	6.4	5.8	6.2	
Total		39.0	20.9	45.1	26.7					51.7	37.7	
UNITED KINGDOM FT												
Secondary			6.4		6.2		6.6		6.4			
Further education, non-advanced(6)			3.8		5.1		5.6		5.7			
Higher			7.4		7.0		6.8		6.7			
Advanced courses PT(6)							0.5		0.6			
Non-advanced PT			25.4		26.0		24.6		23.3			
Total			43.0		44.4		44.1		42.7			
			(17.6) (1972)		(18.4)		(19.0)		(18.8)			
SWEDEN												
- Secondary			39.1		34.2						35.2	
- Non-university			1.3									
- University			0.3		0.2						0.9	
Total			40.7		34.4						36.1	
YUGOSLAVIA												
- Skilled worker training	15.0				18.4							
- Other technical/vocational schools	12.6				17.0							
- Secondary, general/teacher training	13.0				14.1							
- Higher	..				..							

(6) Including evening classes.

TABLE 12

ENROLMENT RATES AT 19 BY TYPE OF EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978	1979
GERMANY							
Secondary, 1st cycle	0.0	0.0	0.1	0.2	0.1	0.2	
Secondary, 2nd cycle							
- general	6.2	4.9	7.2	7.1	6.9	6.4	
- technical/vocational FT	0.8	1.7	..	4.3	4.4	4.2	
- " " PT	9.4	9.4	..	14.3	16.5	18.3	
Higher							
- university	0.7	3.6	4.2	3.8	3.7	3.5	
- non-university FT	0.5	1.1					
PT	0.1	0.1	0.9	0.9	0.9	0.8	
Total(2)	17.7	20.8		30.6	32.5	33.4	
	(8.2)	(11					
AUSTRALIA(3)		(197					
Secondary, 2nd cycle		1.	1.4				1.4
Higher							
- university			7.2				6.8
- CAE			6.4				6.5
Total		9.5	15.0				14.7
AUSTRIA							
Secondary							
- general and teacher training			2.1	2.3	..		
- technical/vocational FT and PT			10.3	10.8	..		
Higher			..	7.9	7.5		
Total				21.0			
CANADA		(1971)					
Secondary		7.5	5.7		4.0		
Post-secondary		22.4	24.2		24.3		
Total		29.9	29.9		28.3		
DENMARK							
Basic school					0.3		
Secondary, 2nd cycle							
- general					12.8		
- technical/vocational					28.6		
Higher							
- short					0.2		
- medium					0.7		
- long					3.1		
Total					47.7(4)		
SPAIN							
Secondary, general	3.6	4.9	4.8	5.8	6.2		
Technical and vocational	2.8	4.3	3.9	4.2	4.6		
Other secondary	0.4	1.1	1.7	1.6	1.4		
Higher	3.2	6.7	12.2	14.4	15.0		
Total	9.8	17.0	22.6	26.1	27.2		
FRANCE							
Vocational, short	1.5	1.7	1.5	1.5			
Secondary, 2nd cycle	8.3	7.9	6.8	6.1			
Higher technicians	1.4	1.3	1.4	1.7			
Universities(5)	7.1	..	12.2	12.9			
Total	18.3		21.9	22.2			
GREECE		(1972)					
Secondary, general		4.8	5.3				
" , technical/vocational		8.1	13.2				
Non-university		2.6	4.0				
University		6.9	10.9				
Total		22.4	33.4				
ITALY							
Sec., general and teacher training	3.7						
Technical and vocational	7.8						

FT = full-time
PT = part-time

(1) Including certain pupils still in the 1st cycle.
(2) The first figure refers to total full-time and part-time education and the figure between brackets to full-time education only.
(3) Excluding apprenticeship and the TAFE.
(4) Including some 500 pupils not distributed by level.
(5) Including the preparatory classes for the Grandes Ecoles.
(6) Including evening classes.

TABLE 12 (Cont'd)

	1955	1970		1975		1976		1977		1978		1979
NETHERLANDS		M	F	M	F	M	F	M	F	M	F	
Secondary, 1st cycle												
- general		0.3	0.1	0.3	0.1	0.4	0.2	0.4	0.3	0.4	0.3	
- vocational		0.9	0.1	0.8	0.1	1.3	0.2	1.3	0.3	1.2	0.3	
Secondary, 2nd cycle												
- general		5.9	1.6	7.2	2.6	7.1	3.2	7.3	3.2	7.2	3.2	
- vocational/technical		8.5	3.5	10.4	3.8	12.4	4.6	12.8	5.2	13.6	6.4	
Higher												
- University		6.8	2.3	6.0	2.7	..	..	..	..	7.0	3.5	
- Non-university		7.9	5.8	9.5	7.4	10.0	8.6	10.0	8.7	9.5	9.0	
Total		30.3	13.4	34.2	16.6					38.8	22.6	
UNITED KINGDOM PT												
Secondary		0.5		0.5		0.5		0.6				
Further education, non-advanced(6)		2.0		2.8		2.9		2.9				
Higher		11.7		11.8		11.7		11.2				
Advanced courses PT(6)						1.1		1.2				
Non-advanced PT		19.9		21.2		19.0		19.8				
Total(2)		34.2		36.3		35.2		35.7				
		(14.3)		(15.1)		(15.1)		(14.7)				
SWEDEN		(1972)										
Secondary		15.9		12.6						10.9		
Non-university		4.2		1.9								
University		3.9		3.1						4.5		
Total		24.0		17.6						15.4		
YUGOSLAVIA												
Skilled worker training	9.0			6.8								
Other technical/ vocational schools	11.4			11.8								
Secondary, general/ teacher training	10.8			9.1								
Higher	..			..								

(6) Including evening classes.

TABLE [illegible]3

AGE DISTRIBUTION OF NEW ENTRANTS IN UNIVERSITY HIGHER EDUCATION

Percentage

	1[illegible]		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY FT	Tot.(1)		Tot.		Tot.		Tot.		Tot.		Tot. (2)	
17 and under	-		-		0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
18	0.2	0.2	9.6	12.6	5.1	7.3	4.2	6.3	5.3	7.7	5.3	[illegible]
19	10.5	18.2	30.3	43.5	25.0	40.2	22.3	37.2	2[illegible].1	35.9	22.5	[illegible]5.3
20 - 24	81.[illegible]	75.7	51.3	[illegible]8.5	5[illegible].8	41.0	57.3	43.7	55.2	44.3	55.[illegible]	34.1
25 and over	7.[illegible]	5.7	8.7	5.5	14.9	11.[illegible]	16.1	12.6	10.3	12.0	1[illegible]	12.[illegible]
AUSTRALIA(3) FT			1971									
17 and under			41.9	52.8	44.9	48.8	[illegible]3.7	49.2	12.5	45.4	34.[illegible]	[illegible]8.2
18			36.4	36.8	36.5	33.8	37.0	32.1	35.8	3[illegible].6	[illegible]	[illegible]
19			8.9	1.5	8.2	6.3	8.6	5.9	9.4	7.4	[illegible]	[illegible]
20 - 24			8.5	3.7	6.9	[illegible]	6.7	5.1	[illegible]	6.2	1[illegible]	12.[illegible]
25 and over	-		2.4	2.1	3.5	8.8	4.0	7.6	[illegible].2	7.3	[illegible]	[illegible]
AUSTRALIA(3) PT			1971									
17 and under	-		13.7	[illegible].9	13.0	[illegible].0	8.9	5.0	11.8	4.6	[illegible]	3.5
18			20.3	11.2	17.3	8.5	15.7	5.5	15.5	5.[illegible]	[illegible].2	2.5
19			6.3	7.[illegible]	6.0	3.7	6.3	3.8	[illegible].5	3.5	[illegible]	2.[illegible]
20 - 24			27.5	31.2	19.1	19.6	17.6	18.2	17.5	17.4	25.[illegible]	2[illegible].8
25 and over			32.1	41.2	44.5	60.[illegible]	51.5	67.5	50.[illegible]	69.1	[illegible]	[illegible].2
AUSTRIA	1970		1972		1975							
17 and under	-	-	-	-	-	-						
18	19.[illegible]	46.6	29.3	4[illegible].4	32.8	48.9					2[illegible]	[illegible].1
19	22.[illegible]	72.2	25.9	28.9	25.2	29.2					31.[illegible]	2[illegible].7
20-24	52.0	21.0	38.7	20.2	35.4	17.2					32.[illegible]	2[illegible].7
25 and over	5.7	5.1	6.1	4.5	6.6	4.8					6.[illegible]	5.5
DENMARK												
under 21			48.9		44.5							
21 - 26			43.9		42.0							
27 and over			7.2		13.5							
SPAIN												
17 and under			13.9	15.3	28.2	21.7	34.2	39.5	34.6	37.5		
18			20.7	19.8	21.4	24.1	22.8	23.6	22.3	22.3		
19			16.5	17.2	14.8	15.0	14.2	12.4	12.2	10.7		
20-24			34.1	33.3	23.6	27.4	18.6	16.8	1[illegible].0	13.0		
25 and over			14.8	14.5	12.1	11.8	10.2	7.8	16.9	1[illegible].5		
FINLAND												
17 and under					-	-	-	-	-	-		
18					1.8	2.0	1.8	2.0	1.6	2.6	1.8	2.2
19					30.1	32.3	29.0	34.1	30.1	33.2	29.0	[illegible]5.1
20-24					53.5	51.2	53.0	50.5	53.1	49.3	52.6	48.3
25 and over					14.6	14.5	10.1	13.3	15.1	14.8	16.5	14.3

./...

(1) Excluding foreign students
(2) Excluding teacher training colleges and the theological colleges
(3) Students starting a bachelor's degree at university

FT = full-time PT = part-time

TABLE 12 (Contd.)

	1965		1970		1973		1975		1977		1979	
	M	F	M	F	M	F	M	F	M	F	M	F
FRANCE (4)												
17 and under	6.2	8.3			7.7		8.2		7.9		5.4	8.9
18	18.2	23.1			26.8		31.2		22.6		28.2	37.5
19	22.9	24.5			22.9		25.0		25.1		26.6	24.6
20 - 24	40.5	37.3			27.2(5		24.3(5		23.9(5		28.6(5	19.0(5
25 and over	12.3	6.7			15.4(6		11.3(6		10.5(6		13.1(6	9.9(6
GREECE(4)												
18 and under	28.3	43.6	24.4	37.2	31.5	46.5	42.8	60.5				
19	20.9	27.8	23.0	30.8	18.4	21.5	18.5	20.2				
20 - 24	31.6	25.1	32.7	25.9	25.9	20.1	22.0	12.9				
25 and over	19.2	3.5	20.0	6.1	24.1	11.9	15.7	6.4				
ITALY	1964		1967		1973							
18 and under	0.3	4.4	10.6	26.9	[illegible]	22.6						
19	14.2	27.3	31.3	36.5	[illegible]	43.5						
20 - 24	72.4	44.4	48.1	31.5	38.7	26.5						
25 and over	13.0	9.5	10.0	5.1	15.0	7.4						
NETHERLANDS			1971		1974							
under 18			8.9	8.1	0.6	0.7						
18			25.2	26.8	34.1	35.5						
19			21.1	25.0	25.6	26.4						
20 - 24			31.8	20.2	29.7	23.5						
25 and over			13.0	11.9	13.0	13.9						
UNITED KINGDOM (universities)												
18 and under	44.6	55.9	42.2	54.0	39.9	47.6			40.3	45.9		
19	34.3	30.1	32.1	28.0	30.9	29.5			30.9	30.3		
20	9.4	5.7	9.7	7.1	10.5	8.7			10.7	9.7		
21 -	8.4	4.4	10.8	6.6	12.3	8.0			11.8	8.2		
25 and over	4.2	3.9	5.2	4.3	6.3	6.2			6.3	6.2		
UNITED KINGDOM (further education - advanced)												
18 and under			17.6	27.1								
19			24.2	25.8								
20			14.7	11.2								
21 - 24			25.2	16.1								
25 and over			18.2	19.7								
SWEDEN(7)			1971									
25 and over			35.5	33.3	48.6	51.4	46.8	52.7				
of which, covered by the 25/5 rule			8.8	9.7	24.1	24.9	22.7	25.3				

(4) First-year students
(5) 20-23
(6) 24 and over
(7) New entrants in the Philosophy Faculties

TABLE 14

AGE DISTRIBUTION OF NEW ENTRANTS IN NON-UNIVERSITY HIGHER EDUCATION

Percentage

	1965		1970		1975		1976		1977		1978		1979	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY FT	Tot. (1)		Tot. (2)		Tot.		Tot.		Tot.		Tot. (3)			
17 and under	-	-	-	-	0.9	1.4	0.9	1.3	0.7	1.1	-	-		
18	2.8	8.5	12.2	14.4	7.5	9.3	6.3	9.3	5.7	8.4	5.1	8.5		
19	8.6	16.4	21.5	29.8	12.3	24.3	12.0	25.3	12.1	23.4	12.3	24.2		
20-24	76.3	68.0	51.0	43.4	66.7	54.8	68.4	55.3	67.5	51.9	69.1	58.3		
25 and over	12.4	7.1	15.3	12.3	12.5	10.2	12.3	8.8	14.0	9.9	13.4	9.1		
AUSTRALIA(4) FT														
17 and under					33.1	45.6			33.1	41.1	33.9	42.3		
18					31.3	31.2			32.6	32.1	31.7	32.9		
19					11.8	6.5			11.7	7.2	11.1	7.3		
20-24					12.6	5.9			12.7	7.7	13.7	7.5		
25 and over					11.1	10.8			9.9	10.0	11.1	10.0		
AUSTRALIA(4) PT														
17 and under					10.1	11.0			10.4	11.2	10.8	10.0		
18					13.8	14.6			11.8	12.4	10.7	11.2		
19					7.9	6.5			8.3	6.2	6.8	4.9		
20-24					26.5	18.9			26.0	19.2	24.7	20.5		
25 and over					41.7	49.0			43.6	51.1	47.1	53.3		
FRANCE (IUT)														
17 and under							4.0		3.7					
18							31.7		33.1					
19							35.3		35.3					
20-23							26.8		25.8					
24 and over							2.2		2.1					
GREECE(5)														
18 and under					19.9	33.5	27.9	43.7						
19					33.3	38.3	29.5	32.7						
20-24					40.0	26.2	37.2	27.3						
25 and over					11.7	2.0	5.4	1.3						

FT = full-time
PT = part-time

(1) Excluding the higher technical colleges.
(2) New entrants to the colleges of art, music and sport only.
(3) Higher technical colleges only.
(4) New entrants to the CAE, whatever degree or diploma is being taken (university or not).
(5) First-year enrolments.

TABLE 1.

INTERVAL BETWEEN 2nd CYCLE SECONDARY SCHOOL GRADUATION AND ENTRY INTO HIGHER EDUCATION

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
AUSTRALIA - University FT												
Following calendar year					92.2	92.6	85.9	85.5	83.6	82.8	82.2	81.1
1 year later					4.5	4.4	7.4	7.2	8.1	8.0	8.1	7.7
More than 1 year later					3.3	3.0	3.8	3.7	4.8	4.7	5.1	3.9
Other(1)							2.9	3.6	3.5	4.5	5.1	7.3
CAE - FT												
Following calendar year					82.7				79.4	86.2	78.6	85.4
1 year later					7.8				10.8	7.1	10.0	7.0
More than 1 year later					9.5				9.8	6.7	11.2	7.6
Other					-				-	-	-	-
Universities PT												
Following calendar year					46.3	33.0	31.7	27.1	33.8	27.0	30.7	17.2
1 year later							8.4	7.3	7.2	7.8	7.9	8.3
More than 1 year later					28.5	37.6	29.6	33.8	30.7	30.8	20.1	22.2
Other(1)					25.3	29.4	30.3	31.8	28.3	34.4	41.3	52.3
CAE FT												
Following calendar year					48.0				45.3	45.5	40.4	39.3
1 year later					13.0				14.3	11.0	13.0	11.6
More than 1 year later					39.0				40.4	43.5	46.6	47.7
Other(1)					-				-	-	-	-
UNITED STATES												
Same year			65.4		55.7		54.8		54.1			
1 to 3 years			17.5		22.2		22.1		20.9			
4 years and more			17.1		22.1		23.1		24.9			
FRANCE												
Total university + IUT												
Same year					74.3						79.0	
1 year later					11.8						5.8	
2 years or more					12.7						12.3	
Indefinite					1.2						2.9	
IUT												
Same year					86.6						92.3	
1 year later					10.3						4.9	
2 years or more					3.0						2.2	
Indefinite					0.1						0.6	
NETHERLANDS												
University - Transfer rate and interval according to secondary school-leaving certificate												
Gymnasia			(1971)		(1974)							
Same year	75.5	63.4	85.8	66.3	79.6	56.9						
1 year later	13.9	12.7	..	..	..	..						
4 years or more	2.4	2.0	..	..	..	..						
Total	91.8	78.1	..	..	..	..						
HBS (Atheneum in 1974)												
Same year	14.2	21.1	53.4	29.3	69.4	39.3						
1 year later	11.7	6.2	..	..	..	..						
4 years or more	4.0	3.6	..	..	..	..						
Total	59.9	30.9	..	..	..	..						

(1) Including qualifications obtained through adult or "concessional" education which are only classified in the "other" category by all universities for 1978.

FT = full-time PT = part-time

EDUCATIONAL BACKGROUND OF NEW ENTRANTS IN UNIVERSITY (U) AND NON-UNIVERSITY (NU) HIGHER EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978
AUSTRIA						
- University						
General Secondary		84.6	83.7			77.4
Technical and vocational		15.4	16.3			22.6
DENMARK						
- Total U + NU						
Studentereksamen		77.1	68.6			
HF (1)		7.0	17.5			
Other		16.0	14.0			
- Faculties of Arts						
Studentereksamen		91.3	69.7			
HF		1.7	18.4			
Other		7.1	11.9			
- Faculties of Science						
Studentereksamen		92.6	77.4			
HF		0.7	11.6			
Other		6.6	11.0			
- Technical university						
Studentereksamen		87.4	85.7			
HF		-	1.7			
Other		12.6	12.6			
- Schools of economics and management						
Studentereksamen		68.5	76.6			
HF		-	3.8			
Other		31.5	19.5			
- NU teacher training colleges						
Studentereksamen		72.3	57.4			
HF		27.3	38.8			
		0.5	3.9			
- NU Teknika						
Studentereksamen		3.0	10.5			
HF		-	2.3			
Other		97.0	87.2			
SPAIN						
- Faculties						
- Pre-university - COU*				85.4	86.8	
- Technical education				6.1	4.7	
- Students over 25				1.7	1.9	
- Other				6.8	6.6	
- Higher technical schools						
- Pre-university - COU*				87.4	85.6	
- Technical education				7.2	9.0	
- Students over 25				0.4	0.4	
- Other				5.0	5.0	
- Architecture, technician-engineers						
- Pre-university - COU*				70.7	74.5	
- Technical education				6.6	6.2	
- Students over 25				0.5	0.5	
- Other				22.2	18.8	
- Basic school teachers						
- Pre-university - COU*				93.2	92.9	
- Technical education				0.8	0.6	
- Students over 25				0.5	0.7	
- Other				5.5	5.8	

./...

(1) Preparatory examination for higher education intended mainly for people who have not completed secondary education and wish to resume their studies.

* COU = University foundation course

TABLE 15 (contd.)

	1965	1970	1975	1976	1977	1978
FRANCE						
- Universities + IUT			(2)			
- BAC A, B, C, D			80.4	81.6	77.6	
- BAC E, F, G, H			8.3	15.2	15.6	
- Equivalent examinations			7.8	1.4	5.6	
- Special entrance examinations			2.3	1.2	0.9	
- Social advancement programme			1.2	0.6	0.3	
- IUT only						
- BAC A, B, C, D			50.1	49.4	47.2	
- BAC E, F, G, H			43.1	46.9	47.8	
- Equivalent examinations			2.5	1.1	2.7	
- Special entrance examinations			2.0	2.3	2.0	
- Social advancement programme			0.4	0.3	0.3	
ITALY						
- University, total						
- Secondary, general	44.2	37.4	45.0	45.3		
- Secondary, teacher training	18.1	19.4	12.2	12.0		
- Secondary, technical	34.8	40.2	37.9	35.3		
- Secondary, vocational	-	-	-	4.0		
- Other	2.9	3.0	4.9	3.4		
- Faculty of Arts						
- Secondary, general	35.1	27.2	36.4	35.1		
- Secondary, teacher training	55.1	58.6	39.5	38.2		
- Secondary, technical	7.0	12.6	19.1	20.2		
- Secondary, vocational	-	-	-	3.7		
- Other	2.8	1.6	4.9	2.7		
- Technology						
- Secondary, general	58.8	40.9	41.2	42.7		
- Secondary, teacher training	-	0.4	0.6	0.6		
- Secondary, technical	37.4	54.5	51.9	47.4		
- Secondary, vocational	-	-	-	3.8		
- Other	3.8	4.3	6.3	5.6		
- Economics						
- Secondary, general	14.3	19.3	26.4	30.2		
- Secondary, teacher training	-	3.0	4.4	3.9		
- Secondary, technical	82.6	76.4	64.4	60.4		
- Secondary, vocational	-	-	-	4.4		
- Other	3.1	1.2	4.9	3.0		
SWEDEN						
- University						
- Gymnasium (3 or 4 years)	86.3		56.8	54.0		
- Other secondary school-leaving certificates	0.7		4.4	5.7		
- Priority students	-		11.9	12.6		
- 25/5, 25/4 (3)	-		18.3	18.1		
- Adults with no secondary school-leaving certificate	-		-	-		
- Other	13.0		8.6	9.7		
- Total higher education						
- Gymnasium (3 or 4 years)					54.9	57.4
- Other secondary school-leaving certificates					6.7	9.6
- Priority students					6.4	5.5
- 25/5, 25/4					13.5	11.2
- Adults with no secondary school-leaving certificates					4.7	4.3
- Other					14.5	12.2

(2) Excluding the IUT.
(3) People of 25 and over who have five or four years' work experience.

TABLE 17

RATES OF TRANSFER FROM SECONDARY EDUCATION (BY TYPE) TO HIGHER EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978	1979
CANADA							
High School Total		51.7	54.5	52.4	52.6	51.3	51.4
- University		25.0	24.1	23.2	21.9	22.6	23.2
- Non-University		26.7	30.4	29.2	30.7	28.7	28.2
DENMARK	(1966)						
Universities and Centres	59.3	54.6	53.8				
SPAIN							
Ratio of pupils enrolled for a pre-university or COU year and those who have taken a sixth general baccalaureate year or a 7th technical baccalaureate year in the preceding year.	51.7	50.2	82.5				
UNITED STATES	(1966)						
"High school" U + NU	52.5	61.5		58.1		58.8	
FRANCE		(1973)					
Preparatory classes to Grandes écoles							
- General baccalaureate		12.1	12.1			12.9	
- Technician's baccalaureate		0.3	0.2			0.6	
Universities							
- General baccalaureate		53.3	54.7			55.5	
- Technician's baccalaureate		13.5	15.0			16.5	
IUT							
- General baccalaureate		6.4	6.9			7.3	
- Technician's Baccalaureate		14.0	13.3			14.7	
Higher technician							
- General baccalaureate		6.4	7.7			8.9	
- Technician's baccalaureate		18.1	18.6			19.0	
Total							
- General baccalaureate		78.2	81.4			84.6	
- Technician's baccalaureate		45.9	47.1			51.0	
JAPAN							
New entrants in the universities and junior colleges as a percentage of 1st cycle secondary school-leavers three years previously	17.0	23.6	27.8	38.6	37.7	36.4	37.4
NETHERLANDS							
First-year university students as a percentage of pre-university school-leavers	12.4	87.1 (1971)	80.6	80.4	77.5	74.5	
UNITED KINGDOM							
Destination of secondary school-leavers with the following passes:		M F	M F		M F		
Universities							
3 or more A-levels		68.2 57.6	66.9 55.2		66.0 54.9		
2 A-levels		20.9 11.3	21.7 14.0		18.7 13.7		
1 A-level		1.7 0.7	0.7 1.2		1.4 0.7		
5 or more O-levels		0.2 0.1	0.4 0.1		0.2 0.0		
1 to 4 O-levels		0.0 0.0	0.0 0.0		0.0 0.0		
Further Education							
3 or more A-levels		15.4 28.1	13.6 24.4		15.4 22.7		
2 A-levels		41.4 61.3	38.0 45.9		40.4 44.4		
1 A-level		41.7 61.0	35.6 46.3		36.8 42.9		
5 or more O-levels		26.5 42.2	27.7 40.2		24.0 38.1		
1 to 4 O-levels		16.6 25.8	14.7 27.3		13.3 28.4		
Total universities and further education							
3 or more A-levels		83.6 89.7	80.5 79.6		81.4 77.6		
2 A-levels		62.3 72.6	59.7 60.7		59.1 58.1		
1 A-level		42.8 61.7	36.3 47.5		38.2 43.5		
5 or more O-levels		26.7 42.3	27.8 40.3		24.2 38.1		
1 to 4 O-levels		16.6 25.8	11.7 27.3		13.3 28.4		

CHAPTER II

STRUCTURE OF HIGHER EDUCATION PROVISION: THE HERITAGE OF THE 1970s

I. LIMITS TO GROWTH OF HIGHER EDUCATION

This Chapter will focus on some of the more significant structural and qualitative characteristics of changes that have occurred in post-secondary education in recent years, as compared with the pattern of developments which prevailed during the 50s and 60s. It should be stressed from the outset, however, that many of the critical problems and issues facing post secondary systems in the early eighties are not all that different from those already identified and discussed before the onset of the economic crisis.

Some of the permanent dilemmas confronting policy-makers in the field of higher education were summed up in the general report to the OECD Conference on Future Structures of Post Secondary Education, held in 1973, in the following terms:

> "This new goal structure for post-secondary education, superimposed on its traditional functions, gives rise to a number of critical areas of tension around which much of the current debate on the future of higher education revolves. Such tensions exist, for example:
> - between the requirements of excellence and of egalitarianism;
> - between the structure and size of individual demand for higher education and of labour market requirements;
> - between the aspirations and interests of the different groups involved in higher education;
> - between the aspirations and expectations of individual and the prevailing socio-economic constraints in terms of availability of resources, academic attitudes institutional hierarchies, established cultural and social value structures striving for self-perpetuation"(1).

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(1) Policies for Higher Education, General Report, Conference on Future Structures of Post-Secondary Education, OECD, Paris, 16-29 June, 1973.

The new social and economic context no doubt has led to changes in priorities, to a number of problems being viewed in a different light and to render certain conflicts and tensions more acute; but basically many of the current questions and issues in higher education are the result of the structural and qualitative changes brought about by the extraordinary expansion of this sector during the two preceding decades.

The crisis of the 1960s, at least in most European countries, was due to a large extent to the lack of an adequate institutional framework to cope with the growing and increasingly diverse student population. But while it takes time to develop structures in response to new pressures, it takes even longer before people can begin to fully grasp the implications, for the individual and for society as a whole, of post-secondary systems which in a few years more than trebled their population reaching enrolment ratios above 15, 20 or 25 per cent of the relevant age group. There is still a greater time lag before this awareness is translated into changes in attitudes, expectations and in the actual behaviour of the various groups directly concerned with the advent of mass higher education: young people and their parents, teaching staff, employers as well as educational policy makers and government authorities.

While the terms "steady state" or "zero growth" may be useful as a succinct characterisation of the situation during the 1970s (particularly in order to highlight the differences with respect to the period of growth during the 1960s) it is important to remember that in the majority of the OECD countries the overall growth of the post-secondary sector has continued, albeit at a much slower pace, during this decade(1). Thus many of the current problems stem from the need to pursue the slow process of internal organisation and consolidation of mass systems in a much less favourable socio-economic context and against the difficulties of needed readjustments in attitudes and behaviour.

Past OECD work in the field of higher education focussed on the analysis and comparison of the main quantitative trends and structural reforms of the 1960s and made some prognoses about the future patterns of development, particularly in countries where mass higher education was emerging(2). To a large extent, these analyses and forecasts

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(1) See Annex to Chapter I.

(2) (a) Towards New Structures of Post-Secondary Education, OECD, Paris 1971; (b) Policies for Higher Education, OECD, Paris 1974; (c) Towards Mass Higher Education, Issues and Dilemmas, OECD, Paris 1974.

used as a conceptual framework the elite-mass-universal access model originally presented by Martin Trow(1). According to this theory of stages of development, structural reforms in the United States were typical of a country passing from a mass system to a stage of quasi universal access, while in Western European countries reforms were designed to cope with problems of the transition from elite to mass higher education, seen as an ineluctable development in an assumed context of steady growth. The Trow model was no doubt extremely useful as a framework for the study of post-secondary systems in a comparative perspective and in providing a basis for a more global and coherent analysis of a variety of dimensions within the field of higher education often treated in isolation. However, as with the majority of forecasts made in the mid-1960s, it proved less successful in terms of predicting developments in the 1970s.

Obviously no one could have been expected to foresee the oil crisis and the economic recession and its subsequent effects on education. But the fact remains that, at the time, much of the comparative work in education was over-concerned with identifying similarities in patterns of development. Essential differences among OECD countries, in particular those relating to the structure of their educational systems and prevailing attitudes to education, tended to be neglected as an explanatory factor of the greater diversity of trends in the OECD area.

Martin Trow has himself recently made an interesting critical analysis of his conceptual scheme, pointing to a series of factors which may help explain why European systems did not develop as foreseen in the early 1970s(2).

In the present report the argument is put forward that a key factor which past forecasts did not take sufficiently into account is the basic organisational features of education and training provision for the 16-19 year old in individual countries, in particular the various forms of secondary education. The impact of quantitative growth of secondary schools on the development of the higher levels has been recognised for a long time. But far less attention has been focussed on the organisation and functions of secondary education; on the specific selection and orientation procedures used, on how these affect demand for higher education and consequently the size and structure of post-secondary systems. Some of these aspects will be reviewed in Chapters III and IV; at this stage it is useful to point

(1) Trow, Martin, Problems in the transition from Elite to Mass Higher Education in Policies for Higher Education, OECD, Paris, 1974.

(2) See Martin Trow: Elite and Mass Higher Education: American Models and European Realities in Research into Higher Education, Processes and Structures, Stockholm, Sweden NBUC, 1979.

to those particular characteristics of European secondary systems which can help account for some of the "unexpected" trends in higher education during the 1970s and throw some light on the prospects for further development in the coming years.

It will be recalled that in the 1960s the view was held that with the continuous expansion of secondary education in Europe the growth in private demand for higher education would be such that European countries would be in need of setting up mass post-secondary institutions functionally equivalent to the community colleges in the United States, Canada and Japan. At least two distinctive features of many European upper secondary schools help explain why higher education did not expand as rapidly as foreseen nor did it follow the U.S. model of development. These are (a) the modal age of secondary school leavers; (b) the existence of lines of study as basic units of organisation at the upper secondary level, and in particular the existence of a rather large technical-vocational sector at this level.

(a) The modal age of secondary school leavers

Since educational structures and reforms are most often viewed as an integral part of more global social policies concerned with the needs and problems of specific age groups, the age distribution of the population attending a particular level or type of education is a significant indicator in any attempt to foresee its future development. This is not only a question of changes in the balance between mature and young students; it relates also, and more significantly in the present context, to the differences between countries in the age composition of young students pursuing their initial education.

As shown in the Table on the following page, while in the United States and Japan, the majority of 18-year-olds are enrolled at the tertiary level, in many of the European countries the same age group tends to be heavily represented at the secondary level. This phenomenon is most evident in Austria, Western Germany, Netherlands, Switzerland and the Scandinavian countries where a similar trend - though far less pronounced can also be observed for the 19 year old students. As was pointed out in a previous OECD study(1) these differences do not necessarily mean that all European students have more years of formal education before entering higher education (this is only the case in Germany), in some cases they are due to late school entry age (Scandinavia), in

(1) Selection and Certification in Education and Employment Part I.

Enrolment Rates of 18 and 19 year old Students

Country	18 year old		19 year old	
	Secondary Education	Higher Education	Secondary Education	Higher Education
Australia(1979)(4)	6,6	12,9	1,4	13,3
Austria (1977)	40,9(1)	4,1	13,1(2)(1)	7,9
Canada (1977)	20,9	19,4	4,0	24,3
Denmark (1977)	54,1	0,8	41,7	4,0
France (1976)	23,9	10,4(3)	7,6	13,6(3)
Germany (1978)	60,9(1)	0,9	29,1(1)	4,3
Greece (1975)	25,5	9,4	18,5	14,9
*Japan (1976)	3,6	40,1	--	40,9
*Netherlands (1976)	32,3	6,0(5)	14,8	9,3(5)
*Norway (1976)	47,4	0,7	23,0	5,0
Spain (1977)	19,8	14,5	12,2	15,0
Sweden (1978)	35,2	0,9	10,9	4,5
United Kingdom(1977)	35,4(1)	7,3	23,3(1)	12,4
*United States	16,1	32,2	3,6	36,9

Source: Annex to Chapter I.

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* OECD Statistics of Education, OECD 1981
(1) Full and Part-time students
(2) 1976
(3) Including the "Classes Préparatoires to the Grandes Ecoles".
(4) Not including apprenticeship.
(5) Not including university type higher education.

others they are explained by the large number of students who repeat grades (France). They do, however, point to the significant fact that under present schooling conditions, if European countries aim at achieving United States levels of enrolment ratios for their 18 and even 19-year-old population, this would not lead to a similar expansion of their post-secondary systems.

(b) The existence of streaming in upper secondary education

Whatever the differences in rates of expansion and in types or speed of reforms, the curricula and structure of studies of the last years of secondary education in all Western European countries continue to be organised around a varying number but clearly defined and highly structured lines of study. In all of them a clear difference is made between long cycle - usually transfer oriented - and short cycle - usually terminal oriented lines of study, as well as between a general, a technical and a vocational sector. Even in Sweden(1), one of the European countries which most strongly advocates the development of "comprehensive upper secondary education", or the United Kingdom(2) where various types of comprehensive upper secondary schools co-exist (i.e. tertiary colleges, sixth form colleges) this concept is in no way understood as implying the abolition of different lines of study. In spite of the varying and changing interpretations within the European context, the comprehensive principle when applied to the upper secondary level is primarily understood as the elimination or attenuation of hierarchical and status differences among rather well-defined streams, greater flexibility between lines of study and, above all, the integration of most or all options within a single type of upper secondary school.

Thus contrary to the comprehensive systems in North America where most options prepare or qualify for further studies, European countries have maintained a rather large vocational sector at the upper secondary level in preparing pupils for a final professional qualification(3) and only exceptionally qualifying for direct entrance to post-secondary studies.

(1) OECD Reviews of National Policies for Education: Educational Reforms in Sweden, Paris, 1981.

(2) G. Neave, How They Fared: The Impact of the Comprehensive School upon the Universities, London, 1975.

(3) See Chapter III.

Both the presence of an older student body and the organisation of studies on the basis of streams implying in many cases a substantial degree of specialisation, provide indications that European upper secondary schools are fulfilling a number of functions which in the United States are being assigned to the first years of post secondary education. There is evidence that this is true in the field of general as well as technical education. Young people having obtained their academic secondary school certificates in France, Germany, United Kingdom or in Scandinavian countries and who want to pursue higher education studies in the United States are granted equivalences which allow them to take the four year Bachelor's degree in three years, occasionally in less time - depending, of course, on the entry standards of the particular institutions(1). Also quite a number of professional qualifications which in Europe are obtained at the end of secondary schooling, in the United States require some years of post secondary education.

This type of functional equivalence between institutions that are formally classified under different levels of education highlights the weakness of international comparisons which analyse in relative isolation a single level of education or a specific sector of the educational system.

Whether the continuous growth of enrolment rates of the 16-19 year group in Europe will lead to a closer resemblance between European upper secondary systems and the North American senior high school model is a question which cannot be answered in simple terms. Expansion and diversification in response to common pressures and objectives lead, of course, to a certain convergence at least in terms of the problems and issues being faced by most countries in the OECD area. On the other hand, since the economic recession and the growing questioning of past patterns of growth at the post compulsory level came at a time when significant differences still existed - in terms of levels of participation, type of attendance and structures - it could be argued that Western European countries may in the coming years seek other models of development.

In this respect, Western European countries have no doubt benefitted from the experience of countries which preceded them in the process of educational expansion. In the United States, for example, a frequent claim over past years has been that the rapid growth and democratization of education was accompanied by a weakening in the quality of secondary education. Even admitting that such a development is to a large extent the direct consequence of a larger

(1) Such an opportunity is also granted to a small percentage of US high school students who take a special examination.

proportion of pupils from the less privileged groups and with lower levels of academic ability, there are many who question the policy of devoting substantial resources to remedial education at the tertiary level rather than improving standards and performance at the high school level. One result of this practice has been that more and more young people have had to take a 13th and 14th year of education in order to attain minimum standards or basic skills traditionally associated with a secondary level education.

Over the past years this line of criticism has gained momentum and at present there seems to be a strong movement in the United States in favour of devoting far more attention to the social and educational problems being confronted at the senior high school level(1).

In most European countries the policy is to encourage participation at the upper secondary level. However, a major concern is that of avoiding that upper secondary education be considered only, or even primarily, as an intermediate or incomplete stage requiring the immediate pursuit of post-secondary studies. As at present in the United States, there is a strong move in favour of setting or maintaining minimum standards for the completion of this cycle. Similarly, there is also a move to strengthen the professional orientation and relevance of the various options provided in contrast to past trends of adding more years of study as a requirement for entry into certain occupations and professions. The rapid development of schemes enabling young people in post-compulsory schooling to combine in various ways education, training and work are also likely to affect demand for higher education.

Whether these are temporary measures largely conditioned by present concerns over youth unemployment, or whether they reflect a more profound change in educational philosophy, is again a controversial issue. What is clear, however, is that both quantitative and structural changes at the upper secondary level call for much closer scrutiny and attention, in view of the crucial role they play in shaping the future of higher education.

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(1) It is interesting to point out that the U.S. Carnegie Council for the Advancement of Teaching, which for many years has assigned top priority to higher education, is now paying greater attention to secondary education.

II. STRUCTURAL REFORMS OF HIGHER EDUCATION

Compared to the decade of the 1960s, the 1970s appear as a period of considerable stability in terms of structures of post-secondary education(1). Whether this stability is only apparent in the sense that there have been less dramatic and highly visible structural reforms, or whether it also involves a general slowdown in the pace of internal change and innovation at this level of education, is a matter of controversy. Judgements are likely to vary as much from country to country as within individual countries, depending on the groups which produce such judgement as well as on the sectors of higher education which are under strutiny.

To a large extent, the apparent stability of recent years can be seen as a natural follow up of the wave of expansion, major overall reforms and the creation of new types of institutions, i.e. short cycle institutions, open universities, which characterised the period of the 1960s and early 1970s. After the widely publicised debates on general policies and the actual formulation and approval of reform proposals concerning major sectors of higher education, came the period when the problems of detailed implementation had to be faced. And these were problems which, most often, had to be tackled at the level of the individual institutions, of departments and of staff-student relationships.

Thus, in areas such as internal management, access conditions and criteria, structure of studies, organisation of curricula, much effort and ingenuity was required to translate into practice the terms of reference and broad principles formulated at the political level in earlier years. Additional difficulties stemmed from the fact that drastic changes in the socio-economic context of Member countries occurred between the time when these major policies were formulated and the time of their actual implementation. Much of the criticism and impatience on the part of outside groups, and even of public authorities, vis-à-vis the performance of higher education institutions reflect a lack of understanding of the difficulties involved in the process of implementation of these reforms. There is also a tendency, at times, to under-estimate the significance and the long-term consequences of grass root or internal changes within individual colleges and universities.

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(1) When reference is made throughout the report to the 1960s and 1970s this should not be interpreted as covering exactly each decade. The 1960s is understood as the period of growth and expansion lasting in most Member countries up to the early 1970s. The 1970s globally encompasses the period which is marked by the beginning of the economic recession, that is 1973/74.

The fact that reforms in higher education during the 1970s seem to have been mainly in the form of slow incremental changes and focussed more on internal and qualitative aspects than on overall structures - in the words of M. Trow, on the "private lives" rather than on the "public lives"(1) - of higher education systems, makes broad characterisations of national policies during this period particularly difficult.

At the risk of oversimplifying the discussion an attempt will be made to identify some of the more significant trends characterising developments in higher education during the 1970s, comparing them when possible with those prevailing during the 60s. The main features of the scenario of the 1960s and that of the 1970s which account for many of the differences have been repeatedly stated and will not be reviewed here. Considering that trends and reforms are typically the result of the interplay of a variety of pressures and circumstances in which casual relationships are difficult to discern, the emphasis of the present review will be on the type and direction of change rather than on the complex dynamics of how the change came about.

Changes in the institutional framework of higher education systems will be examined under the following headings:

(a) New hierarchies in post-secondary education;

(b) Internal reforms within universities;

(c) Reorganisation of the non-university sectors;

(d) Continuing Education: the expanding sector of post-secondary education.

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(1) See M. Trow - The Public and Private Lives of Higher Education in Daedalus, Winter 1975. Public life is defined as comprising all the plans and decisions affecting colleges and universities made by people other than teachers and students. It includes public discussions and governmental decisions about the support, organisation and structure of higher education; the hearings of legislative committees; the work of coordinating commissions and state departments of higher education and much (but not all) of university administration.
Private life of higher education is what actually happens in the classrooms, libraries, the laboratories, at the desks and in the offices, the moment-by-moment, day-to-day activities and interactions of teachers and students engaged in teaching and learning.

(a) New hierarchies in post-secondary education

During the 1960s, a major concept in the analysis of the quantitative and structural development of post-secondary education was the distinction which was established between university type and non-university type higher education. This classification made it possible to highlight the existence and increased significance of a wide range of post-secondary institutions which, given the traditional view of equating higher education with university studies, had been disregarded in earlier investigations. Studies of the dichotomy between the "noble" university and the "less noble" non-university components of higher education pointed to the hierarchical structure characterising most post-secondary systems. They also paid special attention to the problems faced by many post secondary institutions which were striving to become fully recognised members of the higher education world while at the same time being under strong pressures to develop a distinctive role in order to enhance the diversity of educational provision at this level(1). This characterisation between the "noble" and "less noble" sectors seems far less obvious now than a decade ago. Firstly, in most Member countries the expansion of higher education has by itself led to a much wider variety of university and non-university type programmes and institutions, giving rise to greater diversity and prestige differences within each of these sectors. Recent developments affecting both the supply and the demand for higher education may have further contributed to accentuating some of these "internal" hierarchical differences: introduction of numerus clausus in certain universities or departments witnessing a growing competition for entry while in others open access policies are maintained; growing differences in the employment prospects of graduates from different fields of study, some witnessing high rates of underemployment or even unemployment while others have guaranteed entry into occupations or professions with high income, prestige and power; renewed government concern for developing a small number of well-financed and staffed centres of excellence protected against the impact of demand, etc.

Secondly, it should be recalled that at the root of the "noble" (university), "less noble" (non-university) distinction was the traditional academic value system dominant at the time. This placed at the top of the prestige hierarchy theoretical and so-called disinterested studies plus the training for certain established professions,

(1) Short Cycle Higher Education: A Search for Identity, OECD, Paris, 1973.

while relegating to the lower echelons programmes which were primarily concerned with the teaching of knowledge and skills usable directly in a wider range of occupations. It was clear, even then, however, that "prestige and quality differences will always exist among individual institutions and in this sense more and less noble universities or colleges; what is important is that these differences do not apply to whole categories of institutions e.g. university versus non-university sector"(1).

Actual developments have followed at least partially this postulate, perhaps at a faster pace than was expected some years ago. With the changing labour market situation the dominance of strictly academic criteria has declined at the same time as growing importance is being assigned to the employment value of different types of higher education. Thus a different order of preferences seems to have emerged: the ranking of institutions and programmes in the new pecking order is still conditioned by their academic standing but also, and to a far greater extent than in the past, by their perceived job relevance.

The growing importance assigned to the immediate employment value of higher education institutions is having a number of effects both on supply and demand which will be discussed throughout the report. In terms of the pecking order of the various components of national systems of higher education the following developments are of particular significance: (a) the traditional university model has lost some of its attraction and prestige; this has also meant that other higher education institutions have been less prone to copy universities and that problems of academic drift have somewhat subsided; (b) hierarchical differences among programmes within the university as well as the non-university sectors have sharpened to an extent that some of them have acquired greater significance than the previous binary university non-university distinction. Within each sector some departments or institutions witness a growing competition for entry whereas others have declining enrolments and empty places; (c) directly related, a number of short cycle programmes or institutions, especially those with a professional orientation and providing a certain guarantee of employment are listed higher in the order of student preferences than some university programmes with less professional relevance or leading to employment outlets which are saturated.

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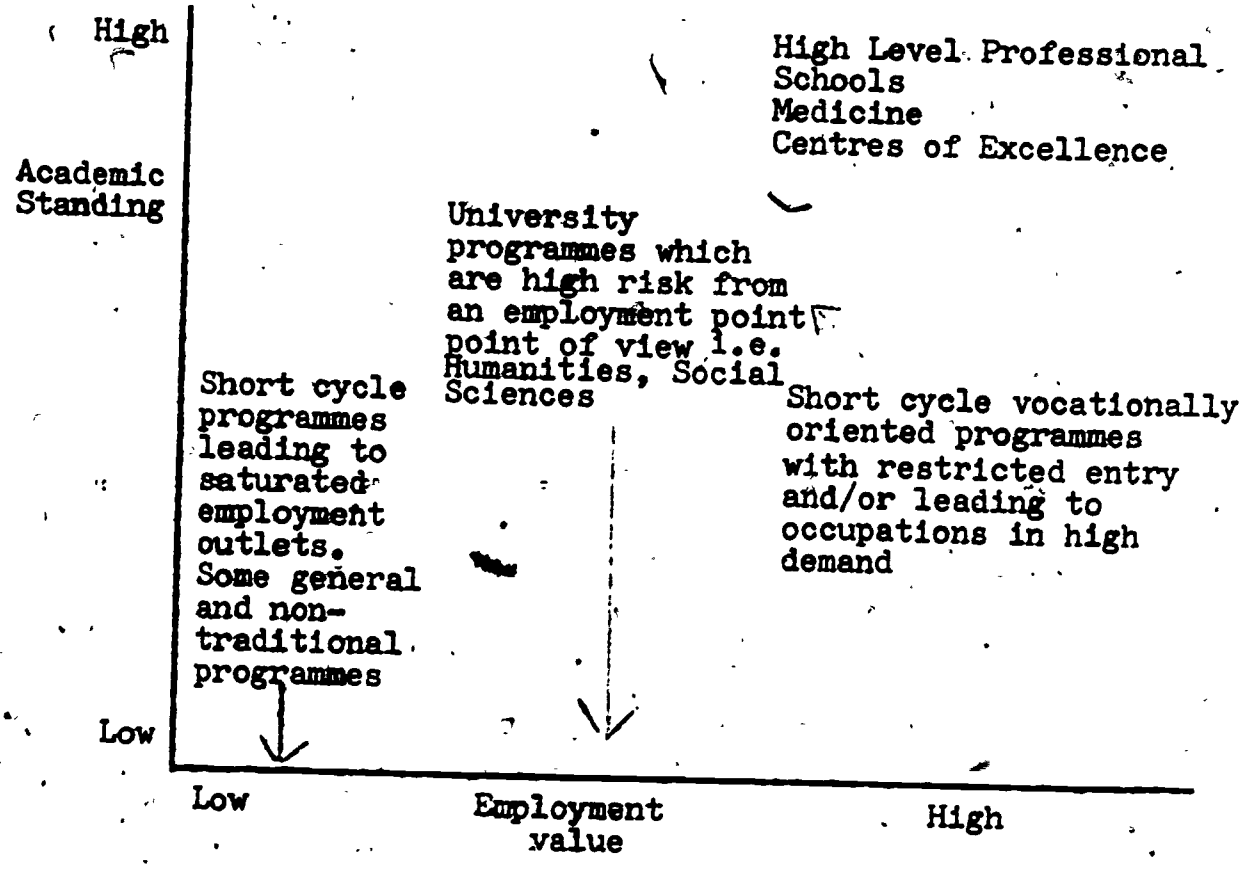
(1) Towards New Structures of Post-Secondary Education, OECD, Paris, 1971, p.37.

The resulting situation is illustrated in the following graph showing the standing of different types of higher education programmes in terms of their academic and employment dimension(1). It should be interpreted merely as an analytical schema designed to illustrate the above argument and facilitate discussion of some of the implications of current trends.



Bearing in mind the far greater complexity of the institutional network in each national context and the variations according to countries it could be useful to examine within each system recent changes in the relative position of different options and their likely mobility in the future.

(1) As will be seen in other sections of the report the employment value is in a way a less rigid and more subjective dimension than academic standing. It is more likely to change over a relatively short time span and be more affected by the individual or group characteristics of those involved in the assessment.

Listed on the upper right hand side of the graph are a selected number of university type institutions or programmes ranking high on both dimensions, usually strongly selective, performing the traditional functions of higher education (strong concentration on research and post-graduate education and training for high level professions). Whatever scenario is chosen for the coming decades, the future of this "noble" sector seems to be relatively well-assured from most points of view (student demand, institutional prestige, government support). The notable exception for some of them would be perhaps that of maintaining strong research capability.

Of particular interest in the present discussion is the situation of those university programmes (centre of the graph) which traditionally had a high academic ranking and prestige but which under the combined effects of massive expansion, the declining employment value of their degrees and consequent changes in student choices, risk becoming increasingly unattractive options. The situation of such university programmes - more often found in the fields of humanities, social science and pure science - becomes even more critical when in addition to the problems created by lack of employment outlets, they constitute the main or only open access sector of higher education and are thus perceived both as high "risk" options and as "safety valves" for the overall system. As a consequence of losing some of their attraction and prestige these programmes recruit a larger proportion of low motivated students: those previously rejected by other selective institutions; those who enrol fully aware of their slim chances in the competition for entry into the prestigeous higher education fields; students accumulating credits awaiting entry into other selective university courses; young secondary school graduates "parking" for lack of job opportunities, etc. In addition, the trend among senior academic staff members to neglect or move away from undergraduate programmes and the increasing difficulties of teaching a very heterogeneous student body - in terms of motivations, ability, socio-demographic characteristics - render the task of maintaining high academic standards of these courses increasingly difficult.

There is the additional danger that, as a consequence of this deteriorating climate, talented young people with a genuine interest and a sense of vocation may be increasingly discouraged from enrolling in courses within the fields of humanities, social science and pure science. This may

have serious effects for these areas of knowledge, gradually being deprived of new talent, creativity and research capacity.

From the point of view of general policy for higher education, the problem is not so much the emergence of a consumption oriented or of a "low employment value" sector at the tertiary level - a trend which may be considered acceptable, even desirable in some countries - but the fact that once certain disciplines or university programmes are considered to have low employment value they risk being further downgraded by a diminution of their academic standing. In this respect, specific types of government measures, such as the reallocation of resources in favour of options with immediate employment value, may further aggravate this situation.

Employment policy measures aimed at improving the career prospects of these young graduates both in traditional and new sectors are of course of key importance. Equally important would be educational policy measures aimed at preventing employment considerations from reinforcing what appears to be a widening gap or segmentation between disciplines or areas of university study.

Similar hierarchical differentiations are also emerging within the increasingly larger and diversified network of post secondary institutions outside the university sector; these will be further discussed under sections (c) and (d). Suffice it here to add that, in recognising the need to increase the employment relevance of many higher education programmes, governments and institutions should be aware of the dangers involved in adopting a too narrow or short term employment perspective. Policies for higher education in the 1980s cannot ignore developments looking forward into the 1990s and beyond, with possible drastic changes in the size and composition of the labour force with very different implications for higher education.

(b) Internal reforms within universities

The need to ensure greater diversity of provision at the post secondary level remains one of the major concerns of educational policy. During the 1960s the prevailing policy was that the most viable - and for many also desirable - strategy towards achieving greater diversity was through the development of options and schemes outside the realm of the university. For some it was a question of

protecting universities from the dangers inherent to mass education, for others it was the lack of capacity or unwillingness of universities to adapt to the new requirements, in short their "resistence to change"(1) which justified the adoption of diversification strategies which essentially aimed at by-passing them.

Moreover, during the earlier period of rapid growth the academic world itself had no strong incentives to undertake major internal reforms in response to either employment needs or individual demand. In spite of government efforts to divert demand to other post secondary programmes, students continued to favour university choices, whatever the field of study or the standing of institutions, so that eventually governments had to devote additional resources to enable this sector to accommodate demand. On the employment side too, university graduates maintained a privileged position in terms of recruitment and promotion prospects whereas in many countries graduates from short cycle institutions faced considerable difficulties in achieving adequate recognition.

It was during the 1970s, as the crisis of confidence in universities gained momentum that the urgency of certain internal changes became more manifest to institutional leaders and academics. Finding themselves in a far more vulnerable position than in the past, having less access to scarce financial resources in a period of rising costs and facing growing external criticisms, universities were gradually led to adopt more responsive attitudes to the needs of clientele and to the new socio-economic circumstances.

(i) The Comprehensive University: A fading idea?

Strategies aimed at the internal reorganisation of universities have been of course dependent on the particular traditions and structure of university systems in each country. It is interesting to note, however, that in their attempts to ensure greater diversity, few universities have adopted the comprehensive or multipurpose model which attracted considerable interest in the late 1960s(2). It

(1) Reference to the universities' resistence to change should not be necessarily understood as implying a negative value judgement. In many cases such resistence has protected universities from certain pressures or temporary fashions likely to undermine their capacity for a high level of performance.

(2) See Towards New Structures of Post Secondary Education, OECD, Paris, 1971.

will be recalled that a fundamental characteristic of the comprehensive model as defined at the time was the merging of short cycle and long cycle programmes within one single institution.

Only very few examples can be found in the early 1980s of fully integrated comprehensive universities(1) i.e. those which have a combined curriculum in the first years of study designed for students pursuing short cycle programmes leading to a professional qualification and for those aiming at full degrees.

In the Federal Republic of Germany six integrated comprehensive universities exist (1 in Hesse and 6 in Nordrhein-Westphalen(2). However, in all of them integrated programmes scarcely represent more than a third of their total provision. In addition, none of these German Gesamthochschulen includes an old established university; they were initially set up by merging teacher training colleges (Paedagogische hochschulen) and higher technical schools (Fachhochschulen) and only later developed full university programmes.

In the OECD area as a whole, a model which is found more frequently is that which in Germany was defined as the cooperative comprehensive university, that is the coexistence of different types of higher education institutions under a single administrative framework without integration of their programmes. This is the case of the IUTs (Instituts Universitaires de Technologie) in France which administratively are part of the universities but function quite separately and differ considerably from the other departments or faculties (U.E.R.'s - Unité d'Enseignement et de Recherche) in terms of their teaching and organisation. Interestingly enough, they have special regulations which puts them under closer government control than the university departments.

It is in Sweden where the idea of setting up comprehensive universities or higher education institutions has received the strongest political support during the 1970s(3). The Reform of 1977 formally abolished the

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(1) The term comprehensive university and the distinction between the integrated and the cooperative models follows the definitions established in Germany in the early 1970s and adopted by the 1976 Framework Act for Higher Education.

(2) L. Cerych, A. Neusel, U. Teichler, H. Winkler: Erfahrung, Hemmnisse, Zielwandel, Frankfurt & New York, Campus 1980.

(3) Goals for Educational Policy in Sweden, OECD, 1981.

distinction between university and non-university higher education and advocated a unitary policy. However, whereas from a planning and administrative point of view considerable progress was accomplished in this direction, relatively little seems to have been done in terms of the actual integration of university and non-university type programmes or courses.

In some respects there is perhaps not too much difference between the cooperative comprehensive model as defined above and the policy advocated by countries of ensuring closer coordination between the various sectors or institutions of higher education within a region even when these remain under separate administration. Indeed, what seems to be quite a general trend is that of maintaining the specificity or distinctiveness of each type of institution in terms of the level of education provided while strengthening their links so as to allow for closer coordination and planning of provision in different geographical areas, make better use of scarce resources and allow for greater student mobility.

The growing interest in designing systems of transferable credits between universities, and even more, between different sectors and types of higher education institutions(1) can be seen as a way of promoting an approach to diversity which favours the move of students between programmes whilst enabling institutions to maintain their distinctiveness(2). However, the slow progress made in improving this type of student mobility, especially in European countries and in Japan, poses at present a serious problem and can be expected to be a major policy issue in the years to come. A highly diversified structure is bound to become a rigid hierarchy if students' choices are irreversible or if many of the options provided are perceived as blind alleys.

Thus, rather than developing sub-degree level work and organising short cycle, vocationally oriented programmes of a similar type to those existing in other post-secondary institutions, universities tend to focus primarily on the

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(1) R. Premfors: Integrated Systems of Higher Education: Sweden. Report presented at the Conference on Comprehensive Universities, New York, December 1980.

(2) In the U.K. there is strong support for development of credit transfer schemes. Similarly in the Netherlands, see: Opening Up Higher Education, Policy Statement concerning Higher Education in the Netherlands, Ministry of Education and Science publication, 1978, p.27.

reorganisation and diversification of degree level programmes and post-graduate studies. Increased efficiency, greater social and employment relevance of first and higher degree programmes and more flexible arrangements for the pursuit of university studies appear to be among the central concerns of recent reform proposals.

(ii) Organisation of University Studies in Cycles

The trend towards the organisation of university studies into consecutive and more sharply differentiated cycles represents the initial approach to coping with the massive expansion of the past decades. Such a policy has been more frequent in continental European countries where universities, committed to open access and having degree programmes which last from 4 to 7 years(1), had to operate explicitly or implicitly an orientation and/or selection function after entry. The first cycle, generally labelled introductory or orientation, offers a general type of education in which research activities are kept to a minimum and teaching is predominantly carried out by junior staff members. In France, for example, during the early 1970s a first cycle of 2 years duration leading to a diploma (DEUG) was set up within a large number of university programmes. The Government's idea was that this diploma was to have both a terminal and a transfer orientation. However, in practice it was never considered by the staff or the students as a terminal qualification but rather as the basis for selection and streaming into the next cycle culminating in either a "licence" or a "maîtrise". A similar first cycle exists in Yugoslav universities; in Belgium the first cycle or candidaat lasts 2 years but has no terminal or professional orientation. In the Netherlands the Higher Education Bill which has recently passed through Parliament envisages the introduction of a preliminary year followed by an examination which has a "threefold function of orientating, selecting and advising another course"(2).

(1) In some countries such as Netherlands and Germany there is no distinction between undergraduate and post-graduate studies. This distinction will be introduced in the Netherlands in 1982.

(2) Opening Up Higher Education, Policy Statement concerning Higher Education in the Netherlands, Ministry of Education and Science publication 1978, p.27.

In addition to its explicit function of orientation, it is quite obvious that the first cycle or propedeutic years in universities have often been implicitly assigned a "cooling out" or selective function, particularly in countries where universities had open access. A number of their characteristics show that they were designed primarily as an introductory selective phase of a full degree programme (and less as a terminal diploma or an orientation phase). Firstly, rather than adapting first year courses to the incoming students, their traditional characteristics were often maintained; sometimes selection was reinforced through difficult examinations or the introduction of selective subjects, i.e. emphasis on mathematics during the first years of many social sciences programmes. Secondly, little attention was paid to the orientation beyond the options provided by the institutions and even less to the preparation of those who eventually would have preferred to leave after the completion of the first stage. As a consequence, universities witnessed high drop-out rates during the first years of study while the majority of students who completed the first cycle aimed at a full degree(1).

Future efforts at enhancing the value of two or three year university programmes, or even at shortening the duration of studies leading to a first degree, may suffer the consequences of past attempts of subdividing degree courses without paying sufficient attention to the needs of those who leave after completing the first years of study. Lack of a more positive orientation at this level tends to reinforce the view, especially among young people pursuing their initial education, that programmes of shorter duration within universities, even when sanctioned by a diploma, are essentially incomplete degrees or an administrative device designed to render selection or dropping out a less traumatic personal experience. (As will be seen later on, it is doubtful whether the introduction of a modular structure of studies in some European universities, whatever their other advantages, has basically modified this prevailing point of view).

In the majority of the Member countries - whether or not a system of cycles has been introduced - the trend has been to emphasize the cutting point between first degree programmes and post-graduate studies. This has again led to reforms aimed at strengthening the terminal orientation of first degree programmes, at a better

(1) Some illustrative figures on dropouts during the first year of university studies are given in Chapter III.

adaptation of curricula and structure of studies to the employment situation and, in many cases, at reducing the research orientation of undergraduate studies, which in quite a number of Member countries has been increasingly reserved to the post-graduate level. Very often, these reforms have been accompanied by more stringent selection policies for entry into post-graduate education.

Indeed, whereas in the 1960s post-graduate studies in a number of countries expanded at an even faster rate than under-graduate courses, in some of them the growth of such courses has been quite seriously curtailed in the course of the 1970s(1). Seen from a research perspective, this trend reversal is even more dramatic since, in some countries at least, the post-graduate level recruits a growing proportion of professionally rather than research oriented students. Serious cuts in the resources assigned to research training and activities, together with the slow turnover due to the age composition of the staff, mostly recruited in the course of the 1960s, poses at present a very serious problem for the future of this level as well as for the research enterprise as a whole whose dynamism and vitality to a large extent depend on the renewal of its work force(2).

(iii) Development of Modular Courses

Another way in which universities have attempted to respond to the more diverse needs of the student body has been through the development of modular courses or an aggregative pattern of studies(3) whereby courses, modules or units can be aggregated to constitute a degree or be credited independently. As in the case of the re-organisation by cycles, few universities have adopted a modular pattern of studies as a means of facilitating the preparation and transition to employment of young people who are in their initial training and who could eventually decide to interrupt their studies after one, two or three years of university education. Up till now at least, the emphasis has been either on the reorganisation of degree level studies or on envisaging the participation of new groups, in particular adults already in employment.

When the focus is on the first function, as for example in France where a modular system (unités de valeur)

(1) See Chapter I, Table 3.

(2) The Function of Scientific Research in the Higher Education System - Background Report by the Secretariat, OECD, 1981.

(3) For the main characteristics of such a model see Selection and Certification in Education and Employment, OECD, Paris, 1977.

has been set within the mainstream of many university programmes and thus applies to all students pursuing undergraduate studies, modules are organised and perceived primarily as part of a full degree and in general have not resulted in stronger vocational or terminal orientation of the first years of study. On the other hand, when modular courses are introduced essentially as an alternative to full degree programmes and mainly designed for adults, e.g. the single courses in Sweden, they tend to be more frequently structured as self-sufficient or independent units. It is possible that as a growing number of students enter the mainstream of universities without the intention of completing a full degree these distinctions may become increasingly blurred. However, this still leaves open the question of whether the future trend will be towards a stronger terminal or vocational orientation of the first years of university studies. For the moment, the trend in quite a number of countries is that of maintaining the general orientation of the first years of university studies and of allowing young students completing the first years to transfer to other post-secondary institutions where, in a relatively short period, they can obtain a middle level qualification or enrol in a vocational course likely to facilitate transition to employment.

(iv) Shortening the formal and real duration of university studies

Shortening the formal and real duration of university studies has been a matter of particular concern in many of the continental European countries e.g. Denmark, Germany, Netherlands, where long cycle studies leading to a first degree usually take 6 to 9 years. Measures aimed at improving the efficiency of university studies understood in this context as increasing the proportion of students who both complete their studies and do so without delays have been more rapidly introduced - even if not always with great success - than the actual shortening of university programmes. The introduction of restricted entry, the development of transferable credits between institutions, certain changes in student aid schemes designed to encourage students to proceed at the established pace can be seen as responding to these efficiency requirements. In spite of the fact that changes in student participation and the diversity in patterns of attendance have rendered more complex the definition and measurement of efficiency, the persistence of wide differences between the number of new entrants and the number of first degrees awarded x years later remains a key problem in many European universities.

The shortening of the formal duration of first degree university programmes appears to be an even more difficult enterprise. Although on the agenda for reforms of some countries it has been listed as a priority for a number of years (e.g. U(90) in Denmark, 1978 Bill in the Netherlands, Federal Frame Law in the Federal Republic of Germany), by the end of the 1970s little progress had been achieved. Only recently, and after long negotiations, has the Dutch Parliament approved a Higher Education Bill which foresees that most first degree university programmes will have a length of four years (doctoral stage) (as opposed to 5 or 6 years in existing programmes) to be followed by a 2-year post-graduate stage(1).

Since the real duration of studies in the Netherlands is on average 7 to 9 years the law also stipulates that students will be allowed a maximum of two additional years, that is, a total of six years - to complete their first degree.

Resistence to shortening of university studies stems both from internal academic-based pressures and from the concern among many professional associations. The latter fear that the value of university degrees will be further undermined and that these shortened degrees will not be given adequate recognition in employment. In Germany, the employers have opposed the Wissenschaftsrat proposal to shorten university courses.

It is interesting to note in this respect that when new degrees are introduced in each country they are set up so that they correspond as closely as possible to the traditional ones. Sociology and political science, for example, takes 6 or 7 years in Denmark, 4 years in France, 3 years in the United Kingdom. Understandably, this is considered an essential requirement for ensuring the social and economic status of the new professions but at a time of strong financial constraints this monolithic structure may well contribute to block the development of new programmes within the university sector.

(v) Diversifying modes of attendance

One of the objectives of recent reforms to which universities appear to be increasingly committed is that of allowing for more flexible and diverse arrangements for the pursuit of university studies, in

(1) Opening Up Higher Education, op.cit.

particular on a part-time basis. Recognising that most courses have been traditionally designed for a small proportion of young people who had the time and possibility of staying on in universities on a full-time basis for many years, efforts are now being deployed to respond to a clientele for which such arrangements are definitely ill-suited or represent a major obstacle to their further education.

A key policy question during the 1970s was whether the provision of more flexible schemes on a larger scale, in particular in the form of distance learning, should be taken over by the established universities or by specialised institutions set up for this purpose. During a first stage quite a number of OECD countries, e.g. Germany, Japan, Spain, Netherlands, favoured the second option, influenced perhaps to quite a large extent by the success of the Open University in the United Kingdom; others like Australia, with a long tradition of part-time adult education courses, and Sweden opted for diversifying provision within the existing framework. More recently, even in countries where special "non-traditional" institutions have been set up, there seems to be a growing disposition on the part of universities towards facilitating part-time attendance and developing schemes which allow for an alternation between studies and work. As discussed in section (d) an essential consideration is that of maintaining levels of participation and resources. However it is possible that whereas during a first phase the Open University in the United Kingdom may have inhibited reforms within established universities, its subsequent success in paving the way for part-time studies and in establishing their respectability may prove to have an opposite stimulating effect on the traditional university sector.

As shown in Chapter I (table 4) in the few countries for which information is available, the number and proportion of part-time students increased over the past decade. This table, however, does not provide a true picture of the growing diversity in patterns of attendance, a trend difficult to discern in many of the national statistics(1), particularly in countries where no clear distinction is made between full-time and part-time enrolments. In France and Italy, for example, where all university students are listed as full-time, surveys show that a considerable number of students - varying according to fields of study and location of university - engaged in some type of work, including full-time employment.

(1) For further details on this trend see Chapter IV.

The results of a French survey based on a national sample of higher education institutions(1) shows the increase in the proportion of students who combine studies and work:

Percentage of university students who declare being in paid employment

	1977	1979
Students in full-time employment	5.4	6.4
Students in part-time employment (working regularly)	15.0	18.8
Students in part-time employment (working irregularly)	18.6	24.3

Percentage of students who are employed at least part-time from time to time(4)

	73(2)	77(3)	79(3)
1. Law and Economics	35.4	39.9	44.4
2. Letters and Social Sciences	34.8	47.0	59.9
3. Sciences	31.9	31.2	40.5
4. Medicine, Dentistry and Pharmacy	21.2(5)	34.0	48.8
Total University	32.2	38.9	49.5

(1) Survey undertaken by Guide de l'Etudiant 1977 & 1979. Source: J.P. Jarousse, Evolution du Comportement des Etudiants, CREDOC, December 1980, p.17.

(2) Survey CREDOC - IREDU

(3) National Survey "Les Etudiants"

(4) 73 = Students engaged in paid employment (irrespective of type) during the week of survey

77+79 = Students engaged in paid employment on a full-time or part-time basis, regularly or otherwise.

(5) Only medicine

Source: Jarousse, Evolution du Comportement des Etudiants, Centre de Recherche pour l'Etude et l'Observation des Conditions de Vie, December 1980. p.9.

Further evidence can be found in countries where there has been a growing trend to organise courses in the evenings, weekends and during holidays. An Italian survey(1) gives a rough idea about the percentage of new entrants to universities who do not work or do not plan to work while pursuing their studies.

Discipline	Proportion who declared they did not work and did not intent to seek work
Mathematics	56.6
Physics	36.0
Chemistry	53.2
Geology	36.5
Computer Studies	45.6
Natural Science	50.4
Biology	54.4
Pharmacy	55.2
Medicine	66.1
Engineering	50.4
Architecture	38.5
Agronomy	39.8
Veterinary Medicine	48.7
Economics and Commerce	29.8
Politics	22.3
Sociology	22.4
Law	37.2
Letters	48.1
Literary Subjects	45.1
Philosophy	40.7
Pedagogics	42.0
Modern Foreign Languages	44.4
Foreign Languages	46.2
Psychology	33.1
Total (All Subjects)	44.4

(1) ISTAT Indagine Speciale Sulle Caratteristiche degli Studenti Universitari Iscritti al I Anno di Corso, Rome 1977.

The steady increase in the number of students who do not participate on a full-time basis and combine studies with work, other social activities or leisure has also been viewed as an indication of a certain loss of confidence in the economic value of studies being pursued(1). More uncertain about the social and economic returns to their "investment", students tend to be less motivated to devote time and efforts on completing courses at a rapid pace; they are more willing to enter the world of work or engage in low and even unpaid activities when openings are available. The fact that young people participating on a part-time or more irregular basis are essentially found in fields of study with poor employment prospects (see Table on previous page) would tend to confirm this argument.

It is indeed possible that in the future some of the more significant changes in higher education will result not only or primarily from the presence of new groups but rather from the traditional young clientele likely to seek new forms of participation.

(vi) Increasing the employment relevance of university programmes

The need to increase the employment and social relevance of university first degree programmes is mentioned by most Member countries as being a crucial guiding principle of many proposals and actual reforms of the structure and content of university studies. This common concern, however, is not followed by a consensus as to the emphasis that should be placed on this objective and even less as to how it should be translated into practice. The controversy and confusion characterising debates on this issue are to a large extent due to the fact that they touch upon the fundamental questions concerning the main functions of the various types of under-graduate studies and more specifically on the complex area of the higher education/employment relationship. The very different ideological viewpoints which prevail, even within the various political forces and interest groups, plus the multiple definitions and interpretations of certain key concepts as "employment relevance" and "employment needs" at this level, particularly when qualitative aspects are considered, further add to the difficulties in finding satisfactory solutions.

(1) This idea has been developed and illustrated by M. Levy Garboua using data on France. See: La Selection dans l'enseignement supérieur français - une synthèse des travaux statistiques recents, (mimeo).

An idea receiving quite strong support and which has been the guiding principle in recent plans or reforms(1) is that of organising degree courses so that they respond to the needs of more broadly defined occupational sectors. This has meant advocating reforms in quite different directions, depending of course on the orientation of traditional programmes of study and the objectives pursued. In the case of certain types of professional training, in particular where the market for graduates is considered to be nearing saturation, there are claims in favour of broadening the curricula and introducing a more comprehensive type of education aimed at preparing future graduates for a wider range of jobs. The reform of many Colleges of Education into more comprehensive or polyvalent Institutes or Colleges of Higher Education illustrate this trend.

In a growing number of countries reforms in the content and structure of studies designed to increase the employment and social relevance of professionally oriented programmes, are seen in a more dynamic and forward looking perspective, that is as a means of changing and diversifying the profile of established professions so that they better respond to new societal requirements. This is in particular the case of the service professions i.e. health, social services, teaching(2).

At the other end of the spectrum are a variety of university degree courses, primarily in the fields of Humanities, Social Sciences and Natural Science faculties which, having grown vary rapidly in response to individual demand and to the employment needs in the public sector, in particular in the education system itself, are now under strong pressure to change and/or strengthen their professional orientation, given the serious contraction in these employment outlets(3).

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(1) See Country Reform of Higher Education Studies: Humanities and Social Sciences in the 1980s - Swedish Country Report to the Intergovernmental Conference on Policies for Higher Education in the Eighties, 1981 (mimeo).
U.90 Danish Educational Planning and Policy in a Social Context at the end of the 20th Century - Central Council of Education, Ministry of Education 1978.

(2) See OECD, University and the Community: the problems of changing relationship, Paris, 1981.

(3) OECD, Reform of Higher Education Studies, Background Report by the Secretariat (1981).

Arguments in favour of an increased "professionalisation" of university studies, of introducing courses likely to facilitate transition to the world of work, or better suited to employment prospects - also or predominantly outside the public sector - are addressed in the first place to programmes in those fields which in many countries enrol a substantial majority of university students particularly women (see table).

Proportion of university students enrolled in the Humanities & Social Sciences 1977

	Total Enrolments (1)			Female		
	Humanities	Soc.S.	Total	Humanities	Soc.S.	Total
Australia	36,2	17,6	53,8	56,4	16,1	72,5
Canada	43,2	13,4	56,6	49,7	14,1	63,8
Finland(2)	29,7	26,0	55,7	21,0	46,5	67,5
Germany	37,6	13,9	51,5	58,0	10,5	68,5
Ireland(2)	39,8	12,3	52,1	65,3	5,4	70,7
Japan	23,9	"	"	"	"	"
Netherlands	18,0	22,9	40,9	31,7	19,1	50,8
Spain(2)	30,6	12,6	43,2	51,3	8,7	60,0
Switzerland	23,5	21,5	45,0	40,8	24,0	64,8
United Kingdom	24,9	20,5	45,4	"	"	"

(1) Humanities, Fine Arts & Education

(2) 1976

Source: OECD Educational Statistics in OECD Countries, Paris 1981.

(c) The consolidation and reorganisation of the non-university sector

During the 1960s efforts to increase the options available at the post-secondary level led governments to focus their attention on a variety of institutions already providing advanced level training but which were at the periphery of higher education. Some of them were in between the secondary and the post-secondary levels, others were labelled post-secondary as opposed to the higher education and university sector. In general, they constituted the peak of the technical vocational sector leading to middle level qualifications and this represented the main post-secondary options for pupils completing secondary technical education.

The need to expand provision and set up alternatives to full degree programmes for the growing number of secondary school graduates qualifying for higher education and to enhance the status of technical education were among the pressures which led governments to reform, upgrade and integrate these institutions within more largely defined higher education systems. Similar considerations were behind the creation of new short cycle institutions and other non-traditional programmes which flourished during the late sixties(1).

Evidence for some OECD countries on the growth of the non-university sector over the past 15 years and on the proportion of students entering this section out of total higher education is given in the Annex to Chapter I.

Figures should be interpreted with caution, particularly those concerning European countries where the majority of institutions in the non-university sector have restricted entry. Indeed, in many cases the decline in the rates of growth during the 1970s may be due less to a disaffection in demand than to a slowdown in the expansion of places. Claims that competition for entry into post-secondary technical education has increased in recent years would confirm this interpretation.

As indicated above, up to the early seventies the prevailing trend among short cycle institutions was to favour a pattern of development intended to increase their chances of gaining prestige and recognition within the academic world. However, in their strive to be upgraded

(1) OECD, Short Cycle Higher Education: A Search for Identity, Paris, 1973.

they often ended up by losing at both ends: on the one hand they seldom succeeded in achieving true parity of esteem within the academic world; on the other, because they neglected some of the functions on which their traditional standing and value were based, they were often viewed by outside groups, in particular employers, with increased scepticism.

Partly on the basis of this experience and largely influenced by changes in the employment situation and in patterns of demand, in recent years short cycle institutions have diminished their concern for academic status and many of them have strengthened the vocational orientation of their programmes.

It is too early to say whether the move towards greater distinctiveness has helped such institutions in finding a new balance and in consolidating their place and identity within the higher education world. Added to the significant variations between countries is the fact that in many Member countries the non-university sector comprises a wide range of diverse institutions and programmes confronted with very different problems and among which there is also a more or less established pecking order.

In general it could be said that the narrower the gap or social distance between institutions in the non-university sector and the universities the more intense and persistent the concern over parity of esteem and the "identity crisis" is likely to be. Teacher Training Colleges in many Member countries, some of the Junior Colleges and 4-year general programmes in Japan and the United States, different types of Polytechnics in Europe, Colleges of Advanced Education in Australia are the ones which face more acutely the dilemma of whether to strive for upgrading and risk becoming weak or second choice university-type institutions or professional schools, or develop a different orientation emphasising differentiation rather than equality. Choice of strategies vis-à-vis the future development of these intermediary type of institutions is of key importance, especially if, with the expected reduction of college age cohorts, they are to strengthen or maintain their competitive position within the overall post-secondary system.

Indeed, already in recent years these intermediary type of institutions seem to have had more difficulties in adapting to the new pressures and constraints than the more vocationally oriented short cycle schemes. The

latter, having less chance to compete on a strict academic basis, traditionally more open to externally defined employment and community needs and often receiving strong public and private financial support, appear to be having an easier task in attracting clientele and gaining outside recognition. In fact, by now many of them are open to a different type of criticism, namely that they are adopting a too narrow employment perspective and thus tend to accept as the overriding criterion for institutional performance the success of their graduates in finding immediate employment.

Although some governments are being held responsible for promoting such a narrow employment perspective, it is also true that the trend towards increased vocationalism is seen to a large extent as a response to changes in private demand. In the United States, for example, where the development of post-secondary education is particularly sensitive to changes in student preferences, the balance between general and vocational programmes in Community Colleges has changed considerably. Whereas in 1971 42% of all Associate Degrees awarded corresponded to vocational programmes, the proportion rose to 57% in 1978(1). Enrolments in post-secondary vocational courses receiving federal aid nearly quadrupled in 8 years from 593,000 in 1968 to 2,169,100 in 1976(2). In France a marked preference for post-secondary technical education has been observed in recent years. Schools for high level technicians which were to be gradually closed down not only continued to expand but some of their sections had in 1978 10 applicants per place available. In Norway, a growing number of qualified secondary school leavers from academic streams enroll in vocational secondary schools. In Sweden a similar trend can be observed. In the Federal Republic of Germany, the number of students with secondary school academic qualifications (Abitur) enrolling in apprenticeship schemes rose from 1000 in 1975 to 20,000 in 1977(3).

The growth of privately financed vocational colleges catering for qualified school leavers or adults with equivalent qualifications poses the problem of setting norms for their accreditation, that is of defining the

(1) National Center for Education Statistics: Digest of Education Statistics - Washington, Volumes 1977/78 and 1980.

(2) The Condition of Education, 1978 Edition, p.156.

(3) Institut für Arbeitsmarkt und Berufsforschung der Bundesanstalt für Arbeit - Abiturienten und Handwerkliche Berufausbildung - Mat AB 8 / 1979.

type of professional orientation and minimum standards required for their inclusion and/or recognition within the formal post-secondary framework. The use of narrowly defined academic criteria within the formal education sector may result - as has already been the case in some countries - in the emergence or further development of training schemes outside the control of Ministries of Education and a corresponding loss of political support and resources for the formal sector. On the other hand, the question remains as to what extent educational authorities should abide by pressures in favour of narrowly oriented or increasingly specialised vocational studies which aim primarily at facilitating insertion of graduates into first employment.

The search for strategies which enable reconciliation of the more immediate "transition" employment requirements (in respect of which the educational sector is under growing pressure to bear and share responsibilities) with a broader longer-term view which takes account of the life-time career of individuals - the most important and uncontested function of educational institutions - remains one of the more difficult challenges confronting educational authorities and institutional leaders in the years to come.

(d) Continuing Education: The Expanding Sector of Higher Education

Whereas during the late sixties and early seventies the predominant trend was to set up special institutions or schemes catering for the non-traditional clientele, in more recent years conventional universities and colleges have shown growing interest in, or at least greater responsiveness to, the needs of adult students. True, the existence of extra-mural courses, extension activities or even external degrees is by no means a new phenomenon, particularly in universities and colleges with an Anglo-Saxon tradition. What is of more recent date is, in the first place, the growing proportion of adults enrolled in mainstream courses generally leading to recognised qualifications. Secondly, and perhaps of even greater significance in terms of potential for the future, is the greater interest and efforts on the part of universities and colleges to provide in a more systematic way continuing education courses which respond to specifically defined requirements of certain groups e.g. short courses or special-training schemes organised in cooperation or under the sponsorship of professional groups, trade unions, enterprises, government agencies and other groups of the surrounding community.

In the majority of cases - the notable exception being the United States - the organisation of these courses is at an initial stage and considered as a clearly distinct and peripheral activity; nevertheless it represents one of the few growing enterprises in the higher education world. The consequences of declining birth rates, the need to use available physical resources as well as tenured teaching staff and growing financial constraints are among the forces which are likely to act as powerful incentives among higher education institutions towards the further development of these types of activity. Also, with certain trends in employment, e.g. shorter working hours, early retirement, there may be growing opportunities of attracting new groups for whom education will represent a form of consumption.

The development of such variety of courses and schemes primarily intended for adults, but also for groups of young people seeking more flexible arrangements, could well lead to radical changes in attitudes to the approach and the organisation of post-secondary education. While no doubt such courses respond to the various claims in favour of greater openness and a better adaptation of the formal system to a recurrent or life-long pattern of education, their development would need careful monitoring so as to avoid inherent dangers to the traditional core functions of academic institutions. Most higher education institutions in OECD countries are still very far from having reached a stage where this type of risk is likely and deserve encouragement in facilitating access to adults and in promoting services to the surrounding community. A different situation is found in the United States, the OECD country which is by far the most advanced in terms of non-traditional provision both in respect of the variety of schemes which are available and the numbers of participants involved. Recently, observers in that country have expressed their concern over some ethically dubious practices developed by certain colleges and universities in their efforts to enroll new students in non-traditional programmes as well as in conventional degree programmes(1). The fear is that in a period of intensified competition for enrolments such as will be faced in the coming 15 years, these practices risk becoming more frequent, thus compromising the integrity of academic life and contributing to a gradual erosion of confidence and public support for higher education institutions.

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(1) Fair Practices in Higher Education. A Report of the Carnegie Council on Policy Studies on Higher Education. Jossey Bass Publishers, 1979.

CHAPTER III

ADMISSION POLICIES

INTRODUCTION

The decade of the 1970s was a period of significant changes in admission policies. These changes were due as much to "outside pressures", linked to the economic situation as to "internal" forces consequent on the extraordinary growth of education and the emergence of new ideas about the type and direction of growth of formal education. While financial and employment factors certainly have given added support to a number of reform ideas and appear to have played a key role in influencing private demand for post-secondary education(1), it should be underlined that many of the recent proposals or actual reforms have their origins and support in broader educational and social considerations. Closely linked to quantitative developments, such considerations often reflect different approaches to some of the perennial problems of educational policies, most notably that of selection within formal educational systems.

Given the well-known fact that selection within formal education is a continuous process and that all educational systems fulfill at one stage or another a major selection and allocation function, it is essential that the debate on admission policies at the post secondary level be set in a wider system perspective. Even when the distinction is made between systems in which universities select at entry and those where universities are open to all those who apply - a distinction which in itself is much more difficult to make now than in the past - it is important to bear in mind that this implies fundamental differences between systems with different strategic points and modes of selection.

Although recognising that practically everywhere in the OECD region, compulsory education still retains a selective function, even in comprehensive systems, the present chapter will take as its point of departure the transition from compulsory to post-compulsory education(2). The first part of the chapter - selection before entry - briefly reviews trends in participation rates at the upper secondary level which may help explain differences between countries in their approach and their policies vis-à-vis access to higher education. The second and main part of the chapter - selection at entry - examines recent trends and reforms in admission policies in various Member countries focussing in particular on the articulation between secondary

(1) Individual Demand for Education: Analytical Report, OECD, Paris, 1978.

(2) For a thorough analysis of developments in basic education see: Policies for Compulsory Education, Parts I and II, OECD, Paris 1980, (mimeo).

and higher education, on policies concerning the access and distribution of students throughout the total range of higher education institutions and on the issue of selection within the university sector. The third and final part - selection after entry - examines briefly what happens to students once they are admitted to higher education, comparing in particular programmes and institutions with different degrees of selectivity at entry.

(a) Selection before entry

Over the past two decades many Member countries extended the period of compulsory schooling and practically all of them witnessed a steady increase in participation rates at the post-compulsory level(1). However, the same indicators which provide the evidence of the progress accomplished reveal the substantial differences in patterns of development across the OECD area. Table 1 gives an approximate picture of the transition from compulsory to post-compulsory education: whereas in the late 1970s in the United States, Canada and Japan practically the totality of the age group continued beyond compulsory schooling, in other countries, such as Austria, Denmark, France, Sweden, United Kingdom, participation rates dropped by more than 25% between the last year of compulsory schooling and the first year of non-compulsory education. In Spain and Portugal departures begin earlier: around 13% of children do not comply with the legal requirement of compulsory school attendance.

Table 2 on enrolment rates in the 16-year age group also gives a rough indication of the proportion of young people staying on beyond compulsory schooling(2). Throughout the late 1960s and the 1970s enrolment rates for this group increased in all Member countries. This Table confirms the top ranking of Japan, the United States and Canada, which together with the Netherlands and Germany have the highest enrolment ratio for this age group in the OECD area; in the latter country, however, 36% of 16-year olds attend formal education on a part-time basis. In a second group of countries - Austria, Denmark, Norway, Sweden, Switzerland and the United Kingdom - between 15% and 25% of 16 year olds were out of formal education in the mid or late 1970s whereas the percentage of abstentions increases up to around 40% in Greece, New Zealand and Italy and, above 50% in Spain and Portugal.

As seen from Table 3, in some countries the high participation rates of the 16 year olds is at least partly

(1) Policies for Compulsory Education, op.cit.

(2) In most Member countries the age at which compulsory schooling ends is 15 or 16. See Policies for Compulsory Education, p. 3.

TABLE 1

HISTORICAL DEVELOPMENT OF ENROLMENT RATES DURING THE LAST YEAR OF COMPULSORY SCHOOLING (c) AND THE FIRST YEAR OF NON-COMPULSORY SCHOOLING (n.c.)

(1900–1977)

Year		1900		1910		1920		1930		1940		1950		1960		1970		1977	
		B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
Austria	c											99.7		99.7		99.7		99.8	
	n.c.											77.8		86.2		70.0*		72.8	
Belgium	c											← All young people were attending school →							
	n.c.											70.3	67.6	79.1	73.7	89.9			
Canada	c							96.0	96.0	95.3	95.4	96.2	95.7	98.0	98.0	100	100	100	100
	n.c.							86.5	85.6	84.4	85.0	92.1	90.7	86.6*	86.4	98.3	98.0	92.1*	92.1
Denmark(1)	c			← All young people were attending school →															
	n.c.			11.0	8.0	13.5	12.0	18.0	16.0	22.0	21.5	29.1	31.5	60.0		77.8	84.7	72.8*	82.7
Spain	c													68.6	58.3	87.6	80.2	86.7	85.4
	n.c.													45.7	33.5	55.4	44.3	79.5	75.7
Finland(2)	c									92.3		98.5		98.5		99.6		99.7	
	n.c.	..		..		..		..		..		..		..		..		..	
France	c	95.0		98.0		98.0		98.5		97.0		98.0		97.4		76.6	81.8	91.2	
	n.c.	34.5		41.0		50.0		60.0		43.0*		50.0		60.5		59.0*	66.4	70.8	
Ireland	c													94.8	96.0	97.2	96.4	95.6	
	n.c.													67.0	70.6	85.4	84.1	86.4*	
Italy(2)	c	50.7	47.3	54.8	51.5	59.4	55.8	78.3	73.6	..	..	83.4		88.8		98.4		105.4	105.0
	n.c.	..		..		..		..		..		..		..		..		..	
Japan(3)	c	90.6	71.7	98.8	97.4	99.2	98.6	99.5	99.5	99.6	99.6	99.3	99.1	99.9	99.9	99.9	99.9	99.9	99.9
	n.c.	..		..		..		..		..		..		..		..		..	
Norway	c													98.0		77.6(4)		97.5	
	n.c.													19.6		24.1		21.0*	
New Zealand	c	59.9		72.4		89.9		..		93.7		96.0		95.4		99.8		99.5	
	n.c.	26.1		34.6		49.4		66.2		71.3		64.7*		77.2		86.8*		88.8	
Netherlands(2)	c	85.2	79.6	88.7	85.5	88.9	86.1	96.8	96.6	97.4	97.5	95.5	97.0	98.0	99.2	99.5	99.6	97.8	97.3
	n.c.							87.2*	81.7	90.5	86.5	71.1*	67.6	84.9	77.1	96.8	92.8	86.6*	80.6
Portugal	c									39.2		72.8(2)		89.3		87.3		87.5	
	n.c.									35.2		60.9		71.2		80.6*		70.9	
United Kingdom	c															100.5	100.4	101.1	100.2
	n.c.															72.2	71.4	61.0*	52.3
Sweden	c					79.5		86.3		87.0		84.3		88.4		93.8		97.8	97.4
	n.c.					..		..		..		..		..		70.5*		76.6	74.0

(1) Except for the final two years, the figures relate to the number of pupils in a given year of studies in relation to the population whose age normally corresponds to this year of studies.

(2) Overall rate for the population of compulsory schooling age: from 1900 to 1920 only for the Netherlands and from 1920 to 1960 for Sweden.

(3) Enrolment rates for the population whose age corresponds to primary schooling from 1900 to 1940 and to first-cycle secondary from 1950 onwards.

(4) A 9-year period of compulsory schooling had already been introduced by 85 per cent of local authorities.

N.B. The asterisks indicate that compulsory schooling was extended.

Source: Policies for Compulsory Schooling, Part One, OECD, Paris, 1980.

Table 2

Evolution of Enrolment Rates in the 16 year-age group

In percentages

	1965	1970	Latest year (2)
Australia	-	55,1 (4)	59,1 (4)
Austria	20,7	-	82,8
Canada*	-	-	88,5
Denmark	-	-	85,3
France	52,3	62,6	70,8
Germany	92,9(27,5) (1)	91,2(35,4) (1)	96,8(60,4) (1)
Greece	-	54,4	58,7
Ireland*	-	55,1(1)	68,6
Italy	33,2	46,9	53,4 (3)
Japan*	-	78,8	91,6
Netherlands	B 88,4(71,7) (1) G 65,3(54,7) (1)	B 95,3(80,8) (1) G 98,6(70,0) (1)	B 98,0(89,9) (1) G 96,2(85,5) (1)
New Zealand*	-	55,7	65,7
Norway*	-	-	80,1
Portugal*	-	25,7	37,2
Spain	14,0	29,4	44,9
Sweden*	-	-	74,9
Switzerland*	-	-	76,3
United Kingdom	-	B 75,0(42,0)(1) G 61,1(41,0)(1)	79,7 (B 57,9)(1) (G 62,9)(1)
United States*	-	92,7	91,3
Yugoslavia	56,3	-	75,1

(1) Figures in brackets refer to full-time pupils only.

(2) Latest year available for each country is given in Table 3.

(3) Slight differences between these rates and those listed in Table 3 are due to the different sources used.

(4) Not including apprenticeship and TAFE.

Sources: For countries marked with an (*): Educational Statistics in OECD Countries, OECD, Paris 1981. In these countries except for Switzerland part-time enrolments are not included. Lack of data is of particular significance in the case of Australia, New Zealand. For all other countries Secretariat data drawn from National Statistics.

Table 3

Enrolment rates in the 16 and 18 year age groups by level and type of education

In percentages

		Compulsory Education	Non-Compulsory Secondary Education	of which Technical and Vocational	Higher Education	Total
Australia(1979)	16	1,8	56,9	-	0,4	59,1
	18	-	6,6	-	12,9	19,5(1)
Austria(1977)	16	-	-	66,	-	82,8
	18		40,9	34,1	4,1	45,0
Canada(1976)*	16	23,4	63,4	-	1,7	88,5
	18	1,1	19,9	-	18,6	39,7
Denmark(1977)	16	69,6	15,7	4,9	-	85,3
	18	1,1	53,0	30,3	0,8	55,4
France(1977)	16	7,1	63,8	33,4(7)	-	70,8
	18	0,1	23,8	5,8	10,4	34,3
Germany(1978)	16	24,5	72,3	51,3	-	96,8(60,4)(6)
	18	1,0	68,4	50,6	1,0	70,4(23,7)(6)
Greece(1975)	16	-	58,7	9,7	-	58,7
	18	-	25,5	11,3	9,4	34,9
Ireland(1975)*	16	10,8	57,1	-	0,1	68,6
	18	0,1	14,0	-	13,0	27,2
Italy(1975)*	16	2,4	49,1	-	-	54,6
	18	0,3	31,6	-	4,4	36,2
Japan(1976)	16	-	91,3(5)	-	-	91,3
	18	-	3,6(5)	-	40,1	43,9
Netherlands(1977)	16	B (2) 58,9(34,2)	39,1	14,7(3)	-	98,0
		G (2) 47,1(22,3)	49,1	21,5(3)	-	96,2
	18	B 8,7(5,6)(2)	33,4	15,9	9,7	51,7
		G 3,7(1,5)(2)	25,8	12,9	8,2	37,7
New Zealand(1976)*	16	3,0	61,9	-	-	65,7
	18	-	6,9	-	11,1	18,2
Norway(1976)*	16	7,9	71,7	32,2	-	80,1
	18	-	47,4	16,0	0,7	48,4

		Compulsory Education	Non-Compulsory Secondary Education	of which Technical and Vocational	Higher Education	Total*
Portugal(1975)*	16	2,8	34,4	10,4	-	37,2
	18	1,0	25,5	9,8	2,7	29,2
Spain(1977)	16	-	44,9	11,7	-	44,9
	18	-	29,8	9,0	14,5	34,2
Sweden(1978)	16	5,0	69,7	-	-	74,9
	18	-	35,2	-	0,9	36,1
Switzerland(1976)*	16	23,1	51,8	40,6	-	76,3
	18	0,4	62,5	48,9	-	63,9
U.K.(1977)*	16	34,5	34,8	9,1	-	61,0(79.7)(4)
	18	-	12,2	5,6	6,8	19,0(42,7)(4)
U.S.A.(1976)	16	22,3	67,9	-	0,6	91,3
	18	1,2	14,9	-	32,2	51,0
Yugoslavia(1975)	16	16,7	58,4	29,8	-	75,1
	18	-	49,5	35,4	NA	

(*) In some countries the total includes a small percentage of pupils in special education

1) Not including apprenticeship and TAFE

2) Figures in brackets refer to enrolment rates in vocational education at this level

3) Includes part-time students not classified by type of school: 8,1% boys and 9,7% girls.

4) Figures in brackets include full-time and part-time students.

5) In Japan 33% of 16 year olds and 1,7% of 18 year olds are in secondary technical courses Type A

6) Figures in brackets refer to full-time pupils only

7) Includes 4,7 of 16 year olds in technical education granting qualifications for entry into higher education.

Sources: For countries marked with an (*): Educational Statistics in OECD Countries, OECD, Paris 1981. In these countries except for Switzerland part-time enrolments are not included. Lack of data is of particular significance in the case of Australia, New Zealand. For all other countries: Secretariat data drawn from National Statistics.

explained by the fact that a high proportion are still in education corresponding to compulsory schooling: 70% in Denmark, 60% of boys and 35% of girls in the Netherlands, around 25% in Canada, Germany, Switzerland and the United States.

Indications of the evolution of upper secondary education in the OECD area are shown in Table 4 listing total and female enrolment ratios for the 17-year-olds, the only age group which in practically all Member countries is typically found at the post-compulsory secondary level. In all countries there has been an increase in participation rates, at least up to 1976; but in some countries they are considerably lower than for the 16-year age group and the potential for growth remains quite high in most of them(1). In spite of the increase in female participation, in more than half of the OECD countries for which information is available, enrolment ratios for girls remain below average. This is particularly the case for Switzerland and to a lesser extent Greece, Netherlands and the United States. Higher than average female enrolments are found in Ireland and Norway as well as in Austria and Germany though in the latter two countries the picture may be biased by the lack of information on part-time students.

Data on actual departures in the course of upper secondary studies for a few countries - as presented in Table 5 - are not very conclusive: in Australia retention rates in the 10th year of education have increased over the years, a trend which is far more marked for girls than for boys at all levels. Retention rates increase in Canada between 1965 and 1970 and, as in the United States, they decline slightly in the early 1970s.

Another rough indication of retention rates in upper secondary education is provided in Table 3 by comparing enrolment rates for the 16 year and 18 year age groups. The information must be interpreted with caution since it refers to two different cohorts in a given year. Furthermore, given the variations among countries in the distribution of both groups among the various levels of education, many different factors can account for departures. As already discussed in Chapter II, in most non-European Member countries the majority of young people complete secondary education when they are 17. A similar, although less pronounced trend is found in France and Spain. However, the large differences in enrolment rates between the 16 and 18 year age groups, even in the European countries - a drop of up to 40%-50% in many of them - indicate that quite massive departures take place at this level.

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(1) For some countries, in particular Austria, Denmark, Germany and the Netherlands, figures in Table 4 cannot be compared with those in Table 3 since the latter does not include part-time students. Footnotes to Table 4 gives enrolment rates for these countries which take account of full and part-time students.

Table 4

Evolution of full-time enrolment rates in the 17-year age group

In percentages

Country	Total				Female			
	Secondary A	Secondary B	Non-Compulsory Secondary Education	Total	Secondary A	Secondary B	Non-Compulsory Secondary Education	Total
Australia (1971)	-	-	28,4(1)	-	-	-	24,4(1)	
(1976)	-	-	31,2(1)	40,0	-	-	30,9	40,3
Austria (1970)	16,1	8,8	24,9	24,9	14,4	10,4	24,8	24,8
(1976)	20,9	7,8	28,7	28,9(4)	20,5	10,1	30,7	30,8
Canada (1976)	-	-	54,7		-	-	55,2	68,5
Denmark (1970)	25,1	7,9	33,0	-	-	-	-	-
(1976)	27,9	18,8	46,8	47,5	-	-	-	-
France (1970)	20,8	10,4	31,2	45,6	23,0	10,7	33,7	48,6
(1976)	26,7	15,0	41,7	53,5	-	-	-	-
Germany (1971)	16,5	5,5	22,0	22,9(5)	14,1	6,0	20,1	20,7
(1976)	-	-	30,0(1)	30,8(5)	-	-	30,6	31,3
Greece (1972)	40,0	8,8	48,8	48,9	40,8	1,6	42,4	-
(1975)	43,5	9,6	53,2	53,2	45,6	1,3	47,0	47,0
Ireland (1971)	-	-	34,8	36,8	-	-	39,4	43,3
(1975)	-	-	42,7	46,0	-	-	48,8	51,4
Italy (1972)	-	-	38,1	38,6	-	-	33,7	34,1
(1975)	-	-	42,6	43,2	-	-	39,1	39,5
Japan (1970) (2)	-	-	74,7	74,8	-	-	74,9	75,0
(1976)	88,1		88,1	88,4	-	-	-	-
Netherlands (1970)	16,8	21,1	37,9	41,5(6)	15,1	16,5	31,6	34,6(6)
(1976)	18,3	14,2	32,5	63,6(6)	18,6	15,2	33,8	56,6(6)
New Zealand (1970)	-	-	23,2	27,1	-	-	17,2	23,1
(1976)	-	-	32,4	35,4	-	-	29,6	33,6
Norway (1976)	34,5	28,8	63,3	64,0	37,0	28,5	65,5	65,9
Portugal (1970)	10,5	11,1	21,5	22,8	9,6	8,1	17,7	19,1
(1975)	19,6	10,6	30,2	32,9	19,3	8,9	28,2	30,5
Spain (1970)	9,8	4,7	14,5	22,1	8,2	1,5	9,7	16,8
(1975)	19,0	4,5	23,4	36,7	17,7	2,5	20,2	32,6

Table 4 (Contd.)

In percentages

Country	Total				Female			
	Secondary A*	Secondary B*	Non-Compulsory Secondary Education	Total	Secondary A*	Secondary B*	Non-Compulsory Secondary Education	Total
Sweden(1976)			60,7	61,7			60,1	61,1
Switzerland(1976)(3)	9,4	58,8	68,2	72,0	7,9	48,7	56,6	60,4
U.K.(1970)			20,3	25,9(7)			19,3	24,8 (7)
(1976)	21,0	9,7	30,7	31,3(7)	20,8	11,5	32,3	32,9 (7)
U.S.A.(1970)			70,1	82,3			70,2	81,5
(1976)			74,0	84,6			69,2	79,4

(1) Total Secondary school

(2) Estimations

(3) Includes part-time pupils

(4) If part-time studies are included the enrolment rate is 73,0%

(5) " " " " " " " " " 74,5% in 1970 and 85,1 in 1976

(6) " " " " " " " " are 76,6% for boys and 41,8% for girls in 1970 and 83,3% for boys and 64,9% for girls in 1976.

(7) " " " " " " " " are 66,6% for boys and 46,4% for girls in 1970 and 61,6% for boys and 54,0% for girls in 1976.

* Secondary A: General or technical education offers pupils, upon completion, a relatively good chance of continuing their studies in a higher education establishment

* Secondary B: General or technical education, after which pupils have little chance of continuing to higher education

Table 5

RETENTION RATES IN THE DIFFERENT TYPES OF 2nd CYCLE SECONDARY SCHOOL 1965-1979 (1)

Percentage

	1965		1970		1975		1976		1977		1978		1979	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
AUSTRALIA - as a percentage of the number of pupils beginning secondary school														
10th year			78.7	76.2	82.0	82.2	86.5	86.7	87.1	88.3	89.3	89.5	88.5	90.4
11th year			46.0	38.7	48.2	47.1	51.4	52.6	50.3	54.4	51.4	55.8	50.4	55.8
12th year			31.1	23.7	34.1	31.6	34.6	35.3	34.0	36.6	33.1	37.3	32.4	37.2
CANADA - as a percentage of the number of pupils enrolled for 9th grade three years previously														
12th grade	63.4		76.0		67.8		69.8				71.8(2		72.3(2	
UNITED STATES - as a percentage of the number of pupils entering 9th grade														
High school graduates	77.4		78.2				76.2		75.6					
UNITED KINGDOM (England and Wales) - as a percentage of the number of pupils aged 13 (1965 and 1970) or 14 (as from 1975) two to four years previously - secondary schools only														
State-aided schools														
15 years old	40.5	39.6	55.1	54.6	-	-	-	-	-	-	-	-		
16	23.9	21.8	32.4	31.7	23.1	24.2	24.5	25.9	24.7	26.8	23.4	25.6		
17	12.5	10.2	17.7	16.9	17.6	18.0	18.4	18.8	18.9	19.5	18.5	19.1		
18	5.1	3.2	6.6	4.8	6.4	5.2	6.5	5.4	6.8	5.9	6.5	5.7		
Non-State-aided schools														
15 years old	89.0	87.6	93.7	88.9	-	-	-	-	-	-	-	-		
16	76.2	62.7	80.0	67.2	77.2	61.6	68.6		68.2		67.3			
17	51.0	34.4	57.7	44.6	61.8	52.6	57.2		57.7		57.3			
18	17.3	8.4	18.7	11.2	19.1	14.0	16.9		17.8		17.3			

Source: Table 4 in the country reports.

(1) Or the nearest year to that mentioned.

(2) Based on projections.

In some cases this may be due to successful completion of short vocational courses before the age of 18, in others to a move from full-time to part-time study schemes as students grow older and not accounted for because of lack of information on part-time schemes. An equally plausible explanation is that as compulsory education becomes more comprehensive and a larger proportion of young people stay beyond compulsory school, selection increases during the last years of secondary education. (This has indeed been shown to be the case in the United Kingdom). Small differences in participation rates between the two age groups in Portugal, Spain and Italy - countries with the lowest enrolment rates in the 16 year age group - and large differences in the more advanced countries such as the Netherlands, Norway and Sweden, would tend to support this argument.

Of special interest to this report are participation rates in different types of upper secondary education. As seen in Tables 3 and 4, Austria, Germany and Switzerland have a very high proportion of the 16 year to 18 year age group in vocational secondary education, that is in lines of study which prepare for a professional qualification and do not normally lead to or qualify for higher education. Similarly, Scandinavian countries(1), France, Netherlands, and Yugoslavia have a relatively strong vocational terminal-oriented sector which enrols around 30% of the 16 year old group.

The significance of vocational education in a number of countries appears even more strikingly when one looks at the distribution of qualified school leavers according to the type of school completed. Table 6 shows that by the mid or late 1970s pupils having obtained a professional qualification represent 82% of all qualified school leavers in Germany, 74% in Finland, 50% in France and 45% in Yugoslavia. They account for 20% of all qualified school leavers in the other three countries where this distinction is relevant, and for which information is available.

Comparing previous tables with Table 7 it is possible to see that the size of the vocational sector in individual countries determines to a large extent the proportion of young people who obtain the formal qualifications for entry into higher education. Austria, Germany and Switzerland, with high enrolment ratios for the relevant age group but enrolling a majority in vocational education, rank relatively

(1) Evidence for Sweden is given in K. Harnkvist: Individual Demand for Education, OECD, Paris 1978; in 1975 45% of pupils entering the upper secondary school were new entrants to 2-year practical lines of study.

Table 1

DISTRIBUTION OF QUALIFIED SECONDARY SCHOOL LEAVERS BY TYPE OF SCHOOL COMPLETED 1965-1978 (1)

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY												
General	60.4	24.9	61.1	33.9	27.8	27.6	26.8	25.3	24.7	20.3	19.4	17.5
Vocational												
- Speciality certificate FT	39.6	75.1	38.9	66.1	15.2	35.5	18.9	38.9	6.2[2]	7.4[2]	21.5	36.8
- Speciality certificate PT					41.1	29.9	40.5	29.0	57.8	53.5	59.1	45.7
- School-leaving certificate					15.9	7.0	13.8	6.8	11.3	8.8	..	..
CANADA												
- High school	..	..	..		83.8		..		..		..	
- Other	..	..	..		16.2		..		..		..	
SPAIN												
- University foundation course	34.5		..		62.6		58.7		..		..	
- Vocational training	35.3		..		13.3		22.2		..		..	
- Teacher training colleges	16.3		..		6.7		5.4		..		..	
- Other	13.8		..		17.4		13.7		..		..	
FINLAND												
- General	20.6		22.3		25.6		..		..		..	
- Vocational	79.4		77.7		74.4		..		..		..	
FRANCE												
- General (Bac.)	29.1	36.7	35.1		27.2	37.2	28.1[3]	37.1[3]	26.5[3]	36.4[3]	26.1[3]	35.5[3]
- Short vocational	70.0	61.2	55.9		62.9	50.1	61.4[3]	49.2[3]	62.8[3]	48.9[3]	62.5[3]	49.6[3]
- Long technical	0.9	2.1	9.0		9.9	12.7	10.6[3]	13.7[3]	10.7[3]	14.7[3]	11.3[3]	14.9[3]
GREECE												
- General	71.9		67.5		58.9	82.0	57.9	80.6				
- Technical and vocational	28.1		32.5		41.1	18.0	42.1	19.4				
ITALY												
- General	23.6	16.6	15.9	18.0	16.8	20.8						
- Teacher training colleges	3.8	35.8	3.0	35.1	1.7	22.5						
- Technical	43.7	20.7	65.3	26.7	63.0	33.5						
- Vocational	28.9	26.9	15.8	20.2	18.5	23.2						
UNITED KINGDOM - School-leavers according to highest pass levels												
GCE A level/SCE H grade	17.4	14.2	18.9	16.8	17.8	16.1	17.8	16.0	17.4	16.0		
GCE O level/CSE/SCE H grade	22.2	25.0	23.8	25.1	31.1	36.3	32.7	37.8	32.4	38.0		
No high passes	60.4	60.8	57.4	56.0	51.0	47.4	49.5	46.2	50.3	45.8		
YUGOSLAVIA												
- General	21.8		23.3		23.9		25.1					
- Teacher training	3.3		2.9		0.6		0.7					
- Technical	28.1		25.2		29.3		29.5					
- Vocational	46.7		48.7		46.2		44.7					

(1) Or the nearest year to that mentioned.
(2) Excluding the Berufsfachschulen
(3) Including secondary school-leaving certificates

TABLE 7

RATIO OF QUALIFIED SCHOOL LEAVERS FROM SECONDARY (A) TO RELEVANT AGE GROUP (1975/1976)

NOMBRE DE DIPLOMES DE L'ENSEIGNEMENT SECONDAIRE(A) PAR RAPPORT A LA POPULATION DU GROUPE D'AGE CORRESPONDANT

	TOTAL
AUSTRIA/AUTRICHE	19.4
BELGIUM/BELGIQUE	33.2
FRANCE	25.5
GERMANY/ALLEMAGNE	19.4
ITALY/ITALIE	36.8
JAPAN/JAPON	85.9
NETHERLANDS/PAYS-BAS	25.8
NORWAY/NORVEGE	30.5
SWEDEN/SUEDE	21.4
SWITZERLAND/SUISSE	8.4
UNITED KINGDOM/ROYAUME UNI	19.9
UNITED STATES/ETATS-UNIS	74.6

Sources:- For Relevant Age Group, see: Educational Statistics in OECD Countries, OECD, Paris, 1981.

Pour la population du groupe d'âge correspondant, voir: Statistiques de l'éducation dans les pays de l'OCDE, OCDE, Paris, 1981.

- For number of qualified school leavers, see:
Pour le nombre de diplômés de l'enseignement secondaire, voir: I. Cervoh, C. Colton, J.P. Jallade, Student Flows and Expenditure in Higher Education, 1965-1979, Institut de l'Education, Paris, 1981.

low in terms of secondary school graduates qualifying for higher education. The same is true even in countries where vocational education grants qualifications for entry into higher education (e.g. Sweden) since everywhere the policy is that essentially this type of education should maintain its "terminal" employment orientation (as opposed to "transfer" higher education orientation). On the other hand, countries which over the past years have emphasised the development of general education (e.g. Belgium, France), or which have a large technical sector granting the same rights to higher education as the traditional academic sector (Italy), compare more favourably in terms of qualified school leavers than in respect to enrolment ratios.

Bearing in mind these qualifications it is clear that in terms of the proportion of young people of the relevant age group granted the right to apply or to enter directly higher education, some of the Mediterranean countries and certain European countries with large vocational terminal oriented sectors appear to have the strongest "selection before entry" within the OECD area. On the same basis, it is evident that all European countries as well as Australia and New Zealand are far more "selective" than the United States and Japan.

Useful as this type of analysis may be to a review of admission policies and the demand for higher education it should be recognised that it is but one among many different criteria in respect to which secondary systems can be compared and assessed. Value judgements about educational performance require thorough analysis of the social and economic implications of different types of secondary school systems and of the political philosophies behind them, often missing in this type of international comparison. A brief reference to changes in the viewpoints and judgements concerning systems with a German tradition of education and training, e.g. Germany, Austria, some cantons in Switzerland, in the course of the 1970s, serves to illustrate this point.

At the time, as was the case during the sixties and early seventies, when the performance of an educational system was primarily viewed and assessed in terms of its role in promoting greater equality and social justice, the German type model of education and training came under severe criticism. The rigid binary division between, on the one hand, a rather small academic-type secondary school sector and a large hierarchically structured technical/ vocational sector on the other, seemed to function as too

perfect a social selection mechanism. The "creaming off" of a relatively small segment of the school population at a very early age was seen to imply that selection into those streams of secondary education which open up the greatest number of educational and professional choices is largely based on the social and cultural background of the pupils.

With the changing economic and employment situation has come also the awareness that in certain respects, the social selectivity and the rigidity of these systems may have been exaggerated. First of all, the existence of large technical and vocational sectors with highly articulated cycles means that they recruit a relatively large and heterogeneous population in terms both of social and educational origin and that there are considerable chances of upward mobility within the technical sector itself. Secondly, in systems with a German tradition enrolment in technical education is far less associated with under-achievement or failure than in Latin or Anglo-Saxon countries. In addition, technicians appear to enjoy a substantially higher economic and social status in these countries. Finally, the success of Austria, Switzerland and Germany in maintaining low levels of youth unemployment and in ensuring a smooth transition from school to work has further contributed to renewed interest in and positive appraisal of a number of features of these systems; though no one would argue that, given the plurality of objectives of post-compulsory education, the employment dimension can be allowed to monopolise the assessment of performance of upper secondary education systems.

(b) Selection at Entry

(i) Changing links between secondary and higher education

The evolution in the number of qualified school leavers, in particular those coming from general streams, has been perhaps the single most important factor in determining rates of growth in higher education(1). This correlation between the development of secondary and higher education has been especially high during the period of rapid expansion but has loosened up during the 1970s.

Government policies at the post-secondary level have no doubt contributed to a certain type of uncoupling between the two levels. However, an important factor behind this trend is the fact that since around the mid-1970s many Member countries have witnessed a fall or stabilisation in the number of young qualified school leavers from academic type streams applying to post-secondary education. Given

(1) Quantitative Development of Higher Education: Analytical Report, OECD, Paris 1970. Towards Mass Higher Education: Trends, Issues and Dilemmas, OECD, Paris 1974.

the sample of countries represented, Table 8 below is not very conclusive; however it is well known that in Germany there has been a significant decrease in the number of Abiturienten planning to enrol directly in higher education from 87% in 1971 to 68% in 1980; a similar although less pronounced trend in reported in Italy(1), Japan(2), Netherlands, Switzerland(3), Yugoslavia and others. Also relevant, at least in some countries, has been the gradual increase in the number of mature students (see Table 9). Finally, quite a common phenomenon in some countries, in particular the United States and Sweden, is to delay entry into higher education for a certain number of years (see Table 10).

(ii) Restricted and Open Access Sectors of Higher Education

The majority of OECD countries have developed post-secondary systems which include a mix of selective and open access institutions or programmes(4). A more accurate and pragmatic description would be that of a continuum - often a hierarchy - of options with different degrees of selectivity at entry. Practically everywhere, institutional differentiation in terms of access conditions have roughly corresponded to the binary distinction between university and non-university type higher education. However, within this broad pattern different combinations can be found.

Whereas in non-European Member countries, as well as in Greece, Ireland, the United Kingdom and Yugoslavia, the universities represent the selective sector, in most continental European countries the opposite is the case: the majority of university faculties maintain an open access policy while all other higher education institutions apply,

(1) See national contribution from Italy to Intergovernmental Conference on Policies for Higher Education in the 1980s, OECD, Paris 1981, (mimeo).

(2) The Systematic Planning and Administration of Higher Education in Japan (The Second Five Year Plan). The University Chartering Planning Sub-Committee.

(3) See national contribution from Switzerland to Intergovernmental Conference on Policies for Higher Education in the Eighties, OECD, Paris 1981 (mimeo).

(4) As will be made more apparent throughout this report, the term open access has not the same meaning in all countries. It is far more narrowly defined in Western Europe than in the United States, Canada or Japan. In the former, open access is meant to apply only to qualified secondary school leavers from academic or general streams who seldom represent more than 25% of the age group.

TABLE 8

RATES OF TRANSFER FROM SECONDARY EDUCATION (BY TYPE) TO HIGHER EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978	1979
CANADA							
High School Total		51.7	54.5	52.4	52.6	51.3	51.4
- University		25.0	24.1	23.2	21.9	22.6	23.2
- Non-University		26.7	30.4	29.2	30.7	28.7	28.2
DENMARK	(1966)						
Universities and Centres	59.3	54.6	53.8				
SPAIN							
Ratio of pupils enrolled for a pre-university or COU year and those who have taken a sixth general baccalaureate year or a 7th technical baccalaureate year in the preceding year.							
	51.7	50.2	82.5				
UNITED STATES	(1966)						
"High school" U + NU	52.5	61.5		58.1		58.8	
FRANCE		(1973)					
Preparatory classes to Grandes écoles							
- General baccalaureate		12.1	12.1			12.9	
- Technician's baccalaureate		0.3	0.2			0.8	
Universities							
- General baccalaureate		53.3	54.7			55.5	
- Technician's baccalaureate		13.5	15.0			16.5	
IUT							
- General baccalaureate		6.4	6.9			7.3	
- Technician's Baccalaureate		11.0	13.3			14.7	
Higher technician							
- General baccalaureate		6.4	7.7			8.9	
- Technician's baccalaureate		18.1	18.6			19.0	
Total							
- General baccalaureate		78.2	81.4			84.6	
- Technician's baccalaureate		45.9	47.1			51.0	
JAPAN							
New entrants in the universities and junior colleges as a percentage of 1st cycle secondary school-leavers three years previously	17.0	23.6	27.8	38.6	37.7	38.4	37.4
NETHERLANDS							
First-year university students as a percentage of pre-university school-leavers	92.4	(1971) 87.1	80.8	80.4	77.5	74.5	
UNITED KINGDOM							
Destination of secondary school-leavers with the following passes:							
		M F	M F		M F		
Universities							
3 or more A-levels		68.2 57.6	66.9 55.2		66.0 54.9		
2 A-levels		20.9 11.3	21.7 14.8		18.7 13.7		
1 A-level		1.7 0.7	0.7 1.2		1.4 0.7		
5 or more O-levels		0.2 0.1	0.1 0.1		0.2 0.0		
1 to 4 O-levels		0.0 0.0	0.0 0.0		0.0 0.0		
Further Education							
3 or more A-levels		15.4 28.1	13.6 24.4		15.4 22.7		
2 A-levels		41.4 61.3	38.0 45.9		40.4 44.4		
1 A-level		41.7 61.0	35.6 46.3		36.8 42.8		
5 or more O-levels		26.5 42.2	27.7 40.2		21.0 38.1		
1 to 4 O-levels		16.6 25.8	14.7 27.3		13.3 28.4		
Total universities and further education							
3 or more A-levels		83.6 85.7	80.5 79.6		81.4 77.6		
2 A-levels		62.3 72.6	59.7 60.7		59.1 58.1		
1 A-level		42.8 61.7	36.3 47.5		38.2 43.5		
5 or more O-levels		26.7 42.3	27.8 40.3		24.2 38.1		
1 to 4 O-levels		16.6 25.8	14.7 27.3		13.3 28.4		

TABLE

AGE DISTRIBUTION OF NEW ENTRANTS IN UNIVERSITY HIGHER EDUCATION

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
GERMANY FT	Tot.(1)		Tot.		Tot.		Tot.		Tot.		Tot. (2)	
17 and under	-	-	-	-	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
18	0.2	0.2	9.6	12.6	5.1	7.3	4.2	6.3	5.3	7.7	5.3	8.0
19	10.5	18.2	30.3	43.5	25.0	40.2	22.3	37.2	23.1	35.9	22.5	35.3
20 - 24	81.9	75.7	51.3	38.5	54.8	41.0	57.3	43.7	55.2	44.3	55.9	44.1
25 and over	7.4	5.7	8.7	5.5	14.9	11.3	16.1	12.6	16.3	12.0	16.3	12.6
AUSTRALIA(3) FT			1971									
17 and under			41.9	52.8	44.9	48.8	43.7	49.2	42.5	45.4	34.2	38.2
18			38.4	36.8	39.5	35.8	37.0	32.1	35.8	33.6	30.7	30.4
19			8.9	4.5	6.2	6.3	8.6	5.9	9.4	7.4	11.1	8.8
20 - 24			8.5	3.7	6.9	4.3	6.7	5.1	8.1	6.2	15.9	12.0
25 and over			2.4	2.1	3.5	5.8	4.0	7.6	4.2	7.3	7.7	10.6
AUSTRALIA(3) PT			1971									
17 and under			13.7	9.0	13.0	8.0	8.9	5.0	11.8	4.6	4.3	1.5
18			20.3	11.2	17.3	8.5	15.7	5.5	15.6	5.4	6.2	2.5
19			6.3	7.3	6.0	3.7	6.3	3.3	4.6	3.5	3.6	2.1
20 - 24			27.5	31.2	19.1	19.6	17.6	18.2	17.5	17.4	25.3	24.6
25 and over			32.1	41.2	44.5	60.3	51.5	67.5	50.6	69.1	60.6	69.2
AUSTRIA	1970		1972		1975							
17 and under	-	-	-	-	-	-						
18	19.9	41.6	29.3	46.4	32.8	48.9					29.5	44.1
19	22.4	32.2	25.9	28.9	25.2	29.2					31.4	29.7
20-24	52.0	21.0	38.7	20.2	35.4	17.2					32.9	20.7
25 and over	5.7	5.1	6.1	4.5	6.6	4.8					6.1	5.5
DENMARK												
under 21			48.8		44.5							
21 - 26			43.9		42.0							
27 and over			7.2		13.5							
SPAIN												
17 and under			13.9	15.3	28.2	21.7	34.2	39.5	34.6	37.5		
18			20.7	19.8	21.4	24.1	22.8	25.6	22.3	22.3		
19			16.5	17.2	14.8	15.0	14.2	12.4	12.2	10.7		
20-24			34.1	33.3	23.6	27.4	18.6	16.8	14.0	13.0		
25 and over			14.8	14.5	12.1	11.8	10.2	7.8	16.9	16.5		
FINLAND												
17 and under					-	-	-	-	-	-		
18					1.8	2.0	1.8	2.0	1.6	2.6	1.8	2.2
19					30.1	32.3	29.0	34.1	30.1	33.2	29.0	35.1
20-24					53.5	51.2	53.0	50.5	53.1	49.3	52.6	48.3
25 and over					14.6	14.5	16.1	13.3	15.1	14.8	16.5	14.3

(1) Excluding foreign students
(2) Excluding teacher training colleges and the theological colleges
(3) Students starting a bachelor's degree at university

FT = full-time PT = part-time

.../...

TABLE 9 (Contd.)

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
FRANCE (4)												
17 and under	6.2	8.3			7.7		8.2		7.9		5.4	8.9
18	18.2	23.1			26.8		31.2		32.6		26.2	37.5
19	22.9	24.5			22.9		25.0		25.1		26.5	24.6
20 - 24	40.5	37.3			27.2(5		24.3(5		23.9(5		28.6(5	19.0(5
25 and over	12.3	6.7			15.4(6		11.3(6		10.5(6		13.1(6	9.9(6
GREECE(4)												
18 and under	28.3	43.6	24.4	37.2	31.5	46.5	42.8	60.5				
19	20.3	27.8	23.0	30.8	18.4	21.5	18.5	20.2				
20 - 24	31.6	25.1	32.7	25.9	25.9	20.1	22.0	12.9				
25 and over	19.2	3.5	20.0	6.1	24.1	11.9	15.7	6.4				
ITALY	1964		1967		1973							
18 and under	0.3	4.4	10.6	26.9	9.5	22.6						
19	14.2	27.3	31.3	36.5	36.8	43.6						
20 - 24	72.4	44.4	48.1	31.5	38.7	26.5						
25 and over	13.0	9.5	10.0	5.1	15.0	7.4						
NETHERLANDS			1971		1974							
under 18			2.9	8.1	0.6	0.7						
18			25.2	28.8	31.1	35.5						
19			21.1	25.0	25.6	26.4						
20 - 24			31.8	26.2	29.7	23.5						
25 and over			13.0	11.9	13.0	13.9						
UNITED KINGDOM (universities)												
18 and under	44.6	55.9	42.2	54.0	39.9	47.6			40.3	45.9		
19	34.3	30.1	32.1	28.0	30.9	29.5			30.9	30.3		
20	9.4	5.7	9.7	7.1	10.5	8.7			10.7	9.3		
21 - 24	8.1	4.4	10.8	6.6	12.3	8.0			11.8	8.2		
25 and over	4.2	3.9	5.2	4.3	6.3	6.2			6.3	6.2		
UNITED KINGDOM (further education - advanced)												
19 and under			17.6	27.1								
19			24.2	25.8								
20			14.7	11.2								
21 - 24			25.2	16.1								
25 and over			18.2	19.7								
SWEDEN(7)			1971									
25 and over			35.0	33.3	48.6	51.4	46.8	52.7				
of which, covered by the 25/5 rule			8.8	9.7	24.1	24.9	22.7	25.3				

(4) First-year students
(5) 20-23
(6) 24 and over
(7) New entrants in the Philosophy Faculties

TABLE 10

INTERVAL BETWEEN COMPLETION OF SECONDARY EDUCATION AND ENTRY INTO HIGHER EDUCATION

Percentage

	1965		1970		1975		1976		1977		1978	
	M	F	M	F	M	F	M	F	M	F	M	F
AUSTRALIA - University FT												
Following calendar year					92.2	92.6	85.9	85.5	83.3	82.8	82.2	81.0
1 year later					4.5	4.4	7.4	7.2	8.1	9.0	8.1	7.7
More than 1 year later					3.3	3.0	3.8	3.7	4.8	4.7	4.3	3.9
Other(1)							2.9	3.6	3.5	4.5	5.3	7.3
CAE - FT												
Following calendar year					82.7				79.4	86.2	78.8	85.4
1 year later					7.8				10.8	7.1	10.0	7.0
More than 1 year later					9.5				9.8	6.7	11.2	7.6
Other					-				-	-	-	-
Universities PT												
Following calendar year					46.3	33.0	31.7	27.1	33.8	27.0	30.7	17.2
1 year later					28.5	37.6	8.4	7.3	7.2	7.8	7.6	8.3
More than 1 year later					25.3	29.4	29.6	33.8	30.7	30.8	20.4	22.2
Other(1)							30.3	31.8	28.3	34.4	41.3	52.3
CAE PT												
Following calendar year					48.0				45.3	45.5	40.4	38.3
1 year later					13.0				14.3	11.0	13.0	14.6
More than 1 year later					39.0				40.4	43.5	46.6	47.1
Other(1)					-				-	-	-	-
UNITED STATES												
Same year			65.4		55.7		54.8		54.1			
1 to 3 years			17.5		22.2		22.1		20.9			
4 years and more			17.1		22.1		23.1		24.9			
FRANCE												
Total university + IUT												
Same year					74.3						79.0	
1 year later					11.8						5.8	
2 years or more					12.7						12.3	
Indefinite					1.2						2.9	
IUT												
Same year					86.6						92.3	
1 year later					10.3						4.9	
2 years or more					3.0						2.2	
Indefinite					0.14						0.6	
NETHERLANDS												
University - Transfer rate and interval according to secondary school-leaving certificate												
Gymnasia			(1971)		(1974)							
Same year	75.5	63.4	85.8	68.3	79.6	56.9						
1 year later	13.9	12.7	..	..	..	..						
4 years or more	2.4	2.0	..	..	..	..						
Total	91.8	78.1	..	..	..	..						
HBS (Atheneum in 1974)												
Same year	44.2	21.1	53.4	29.3	69.4	39.3						
1 year later	11.7	6.2	..	..	..	..						
4 years or more	4.0	3.6	..	..	..	..						
Total	59.9	30.9	..	..	..	..						

(1) Including qualifications obtained through adult or "concessional" education which are only classified in the "other" category by all universities for 1978.

FT = full-time PT = part-time

in varying degrees, restrictions at entry. This has been the case not only in the small sectors of élite institutions such as the French Grandes Ecoles or certain professional schools in the European countries (engineering, veterinary science, etc.) but also in the majority of the wide range of less prestigious short cycle post secondary institutions where interestingly enough entry restrictions have never been seriously questioned. A first reason is that they accepted candidates from technical streams whose credentials qualified for, but did not grant automatic right of, entry into higher education. Secondly, the fact that from the start their functions were closely geared to more specific manpower requirements, or at least to broadly defined employment needs, served to legimitate their restrictive practices.

These variations, which must be seen in conjunction with the traditional differences in the structure of secondary education systems, obviously conditioned the way in which countries have coped with the expansion in demand during past decades. Recent efforts directed at a more balanced distribution of students within post-secondary education must also be seen against this background. In the non-European Member countries, the development of a non-university sector with relatively open access, such as the Junior and Community Colleges in Canada and the United States, has been used as an explicit strategy aimed both at facilitating the rapid expansion and the diversification of post-secondary education and as means of protecting the more prestigious long cycle institutions. Being relieved of the need to cope with massive expansion, universities and many 4-year colleges could continue applying selective policies with no major risks of creating tensions due to unsatisfied demand. In the words of Clark Kerr, architect of the 1960 Master Plan for Higher Education in California: "I considered the vast expansion of the Community Colleges to be the first line of defence for the University of California as an institution of international academic renown. Otherwise the university was either going to be overwhelmed by large numbers of students with lower academic attainments or attacked as trying to hold on to a monopoly over entry into higher status". That plan, for the first time in history anywhere, guaranteed a place in a Community College for every high school graduate or person over 18 otherwise qualified and gave Community College graduates preference in transferring into the University of California(1).

The advantages and drawbacks of this type of strategy constituted a central topic of debate in the United States during the 1960s and have been amply discussed in international circles. Few would question the key role played

(1) C. Kerr, Higher Education: Paradise Lost?, pp. 267, in Higher Education, Vol. 7, No. 3, August 1978, Elsevier, Netherlands.

by the American Community Colleges in enlarging educational opportunities for young and adults, particularly from less privileged milieux. The strongest doubts have been expressed in relation to the equity issue. Although the Community Colleges have contributed to provide more formal schooling to all segments of the population, they allowed certain groups, especially young people of middle class origin, to maintain their relative advantages insofar as they constituted the bulk of new entrants into the selective and more prestigious institutions leading to the more attractive positions in society. The risk in developing post-secondary systems with strong hierarchical differentiation among institutions is that they may succeed in having a more democratic recruitment without thereby reducing social inequalities in a significant way. As will be discussed further on, the changing employment situation and its consequences for individual demand, plus a variety of measures taken in the course of the 1970s in the United States, both in the field of access and of student aid, may have contributed to blurring hierarchical distinctions and to a greater social mix of students within institutions.

In the United Kingdom, the setting up of a binary post-secondary system has been the policy adopted as a means of coping with expansion. The distinctive feature of this policy is the development of a non-university sector comprising all levels of education from sub-degree to doctorate. Whereas some people have viewed the development of a strong competitive sector primarily as a means of diversifying higher education provision to meet the needs of new student populations through circumventing the universities, others have seen it mainly as means of protecting universities from the impact of massive demand. Whatever the case, it could be said that the creation of the Polytechnics as higher education institutions equivalent to universities - a cornerstone of the binary policy - has contributed to diversify degree-level studies and to maintain the high standards of British higher education. A consequence of this has been to discourage the enrolment of students in sub-degree level courses and on a part time basis, both of which have been either stagnant or declining in recent years.

In the case of many continental European countries, in particular France, Italy, Spain, the trend in the 1950s and 1960s to cope with demand largely through the university sector can hardly be considered as the result of an explicit strategy. More likely such a development resulted from the strong pressures on governments to continue maintaining the long-standing right to a university education for all academically oriented qualified school leavers. The prestige

of the universities together with their open access policies made these institutions the obvious choice for the growing number of qualified young people in spite of government efforts aimed at diverting demand and ensuring greater diversification through the expansion of opportunities outside the university sector. At the same time, however, the existence of a highly developed post-secondary technical sector in a number of European countries e.g. Belgium, Denmark, Netherlands, Norway, greatly contributed to coping with growing demand. Table 11 on the relative weight of the university and the non-university sectors in terms of their actual intake, shows that in the countries mentioned above the latter recruits a higher proportion of new entrants than universities.

(iii) Reappraisal of the individual demand approach

Underlying the laissez faire policies which guided the development of higher education in most Western industrialised countries was the generally accepted principle that provision at this level should be adapted to private demand, i.e. the number of people with recognised qualifications applying for entry. Traditions, the recognised drawbacks or difficulties of applying other planning methods and especially the combined pressures in favour of expansion gave political support to this type of approach.

Quite different and changing interpretations of such a development strategy were already evident during the post-World War period (see following sections). However it is in recent years that the policy of merely adapting the places at the tertiary level to the needs and wishes of qualified school leavers came to be more severely questioned, in particular in European Member countries. Among the main factors and arguments being developed the following can be briefly mentioned(1).

In the first place the mere expansion in the number of qualified secondary leavers from less than 10% to over 20% of the relevant age group has raised the political question of whether societies could or should afford the necessary resources to guarantee freedom of access and of choice to a population which already had been the main beneficiary of expansion of opportunities at the secondary level.

Secondly, reluctance has been further enhanced in view of the widespread belief, supported by considerable evidence, that the expansion of higher education in response

(1) This section draws on G. Williams: Planning the Size and Shape of Post Secondary Systems during the 1980s, OECD, Paris, 1978, (mimeo).

Table 11

Annual Entry to Higher Education as a Percentage of the Relevant Age Group 1976

	Age spread encompassing at least 70% of new entrants	University	Non-University	Total Higher Education
Australia	17-18	16,5	21,2	37,7
Austria	18-20	13,5	5,1	18,6
Belgium	18-20	13,0	20,8	33,9
Canada(1)	18	20,1	10,8	30,9
Denmark	19-21	16,6	20,2	36,8
Finland	19-21	15,9	10,1	26,0
France(2)	18-20	18,8	8,9	27,7
Germany	19-21	13,6	5,6	19,2
Italy(3)	19-21	29,5	1,1	30,6
Japan	18	27,3	11,9	39,2
Netherlands	18-20	8,7	16,8	25,5
Norway	19-21	16,2	-	-
Spain(3)	17-19	28,9	2,5	31,5
Sweden(3)	19-21	33,3	-	-
Switzerland	18-21	11,9	8,6	20,5
U.K.	18-19	19,6	14,0	33,2
U.S.A.(4)	18	26,2	16,5	42,8
Yugoslavia(3)	18-20	8,8	25,7	34,6

(1) 1971. Data includes only those first year students who were in secondary school the previous year.
(2) Excludes new entrants to "Grandes Ecoles" and "Instituts d'Université".
(3) First year students
(4) Degree credit students only.

Source: Education Statistics in OECD Countries, OECD, Paris, 1981, p.74.

to demands of school leavers has in fact not greatly contributed to a reduction in educational inequalities. OECD countries have varied considerably in their success in boosting access to higher education by working-class children, but none have come anywhere near the kind of equality of achievement which would make expenditure on higher education economically redistributive or even neutral.

Thirdly, the emergence of graduate employment or under-employment further raised doubts about the value of allowing growth of higher education to be determined by the demand for it by individuals. There has been in many OECD countries a re-emergence of interest in forecasts of qualified manpower requirements but mostly as a way of orientating the main lines of higher education development. Recent reports in Sweden, Denmark, Federal Republic of Germany have proposed that far greater note be taken of the state of the labour market than had hitherto been the case. However, the difficulty of making reliable long-term forecasts in the free labour market conditions of OECD countries has so far defeated any attempt at closely relating student numbers to estimated labour market needs, except in certain well-defined areas such as some health and technical fields and the teacher training sector. Even in these areas, such attempts have by no means been uniformly successful and in view of continuing methodological problems as well as lack of consensus as to the assumptions on which they should be based, their exclusive use in determining the intake capacity of these sectors is a matter of strong controversy.

Fourthly, in practically all OECD countries the rate of expansion, even if inadequately financed, has led to conspicious increases in the costs of higher education as a proportion of overall educational expenditure(1). The recent and continuing recession has undoubtedly exacerbated the problem: increased expenditures are far more difficult to justify at a time of general retrenchment. As a result, financial considerations have acquired growing importance in shaping decisions on the organisation of provision at the higher levels.

Fifthly, changing attitudes and behaviour of the traditional higher education clientele - as witnessed by the recent sharp reduction in the demand for certain types of programmes in several countries - plus the trend to open up certain sectors to new groups with very diverse backgrounds and qualifications are adding to the difficulties

(1) See Higher Education Expenditure in OECD Countries - Report by the Secretariat.

of maintaining a close adaptation of supply to demand if not for other reasons, than the greater complexity which is involved in predicting the size and nature of this demand and in responding to its fluctuations.

While all these factors are leading to a serious re-examination of certain traditional planning principles it is important to stress that up until now the majority of the OECD countries have maintained one of the central commitments inherent to the individual demand approach, namely that all qualified school leavers claiming direct entry into post-secondary education should be able to find a place within the system.

There is however a significant and growing minority of countries which either do not adhere to this principle or openly declare that under certain circumstances total provision in higher education cannot or should not be adjusted to private demand. In Greece and Turkey, for example, the number of qualified candidates applying for entry exceeds by far the total intake capacity of higher education, thus leaving a considerable proportion of young people with no possibility of pursuing further studies in their own country. In Finland a similar, though less acute, situation has emerged in recent years. In some countries such as Denmark and Sweden ceilings are being set for the total intake capacity of higher education; but in view of the fact that these ceilings are based on quite "generous" assumptions of private demand, it is claimed that expected student numbers continue to be of key importance for planning purposes.

In the light of these trends it could be argued that although individual demand still remains a primary criterion for planning total provision at the post-secondary level, a growing number of countries are inclined to set ceilings or targets above which they are not prepared to guarantee places to all candidates who apply. Restrictions at the system level will therefore most likely depend on the assumptions and criteria on which these targets are based as well as on the future evolution of private demand.

Within the OECD area, only some of the Mediterranean countries are witnessing strong tensions due to an overall lack of places in higher education. The majority of Member countries, however, are facing a different problem, namely that of having excess in demand in certain parts of the system whereas other sectors with growing number of vacancies are competing for a shrinking pool of candidates.

This suggests that, in spite of uncertainties and likely differences in the evolution of global demand, Member countries will be facing in the coming years a

series of common problems when planning the shape of their post-secondary systems, that is, the structure of supply and the intake capacity of the different types of institutions or lines of study. It is precisely in this area where laissez faire policies implying a rather passive adjustment to individual demand are being more forcefully questioned. Indeed, already in the 1970s the influence of demand in the allocation of students within the system has been declining.

As decisions concerning rates of expansion or contraction of the different parts of the system, be it institutions or fields of study, take more account of financial, employment and social considerations the trend is to set greater limitations on applicants' choice of study programmes. In brief, then, in a growing number of countries the individual demand approach to planning higher education is still basically understood as a commitment to ensure a place within the system but not necessarily in the institution or field of study of the candidate's choice.

These statements need to be qualified at least in two respects. In the first place, several OECD countries, particularly those with mass comprehensive secondary schools (United States, Japan, Canada) and all those with a selective university sector (United Kingdom, Australia) have for a long time interpreted the individual demand approach in this "restricted" sense. Secondly, even in countries where freedom of choice is a long standing tradition, it has been applied only to the transition from academic secondary schools to universities.

It is important to stress this latter point since a major characteristic of recent admission reforms in higher education has been the combination of restrictions on access for qualified school leavers from academic lines of study(1) with measures aimed at facilitating the entry of groups which hitherto had been excluded or had been only marginally represented (e.g. adults, racial minorities, people without formal qualifications).

The different schemes developed by the various countries and the problems faced in the course of their implementation are discussed in different sections of the report. At this stage it is important to stress that since in the majority of the OECD countries secondary school leavers still represented in the late 1970s the large majority of the pool of applicants and new entrants to higher education (see Table 12), the net effect has been that of a stronger and more explicit control over

(1) Examples of qualified school leavers with traditional qualifications for entry or from academic streams are those with the baccaleaureat in France, abitur in Germany, matura in Austria, Switzerland.

TABLE 12

EDUCATIONAL BACKGROUND OF NEW ENTRANTS IN UNIVERSITY (U) AND NON-UNIVERSITY (NU) HIGHER EDUCATION

Percentage

	1965	1970	1975	1976	1977	1978
AUSTRIA						
- University		84.6	83.7			77.4
General Secondary		15.4	16.3			22.6
Technical and vocational						
DENMARK						
- Total U + NU						
Studentereksamen		77.1	68.6			
HF (1)		7.0	17.5			
Other		16.0	14.0			
- Faculties of Arts						
Studentereksamen		91.3	69.7			
HF		1.7	18.4			
Other		7.1	11.9			
- Faculties of Science						
Studentereksamen		92.6	77.4			
HF		0.7	11.6			
Other		6.6	11.0			
- Technical university						
Studentereksamen		87.4	85.7			
HF		-	1.7			
Other		12.6	12.6			
- Schools of economics and management						
Studentereksamen		68.5	76.8			
HF		-	3.8			
Other		31.5	19.5			
- NU-teacher training colleges						
Studentereksamen		72.3	57.4			
HF		27.3	38.8			
		0.5	3.9			
- NU Teknika						
Studentereksamen		3.0	10.5			
HF		-	2.3			
Other		97.0	87.2			
SPAIN						
- Faculties						
- Pre-university - COU*				85.4	86.8	
- Technical education				6.1	4.7	
- Students over 25				1.7	1.9	
- Other				6.8	6.6	
- Higher technical schools						
- Pre-university - COU*				87.4	85.6	
- Technical education				7.2	9.0	
- Students over 25				0.4	0.4	
- Other				5.0	5.0	
- Architecture, technician-engineers						
- Pre-university - COU*				70.7	74.5	
- Technical education				6.6	5.2	
- Students over 25				0.5	0.5	
- Other				22.2	19.8	
- Basic school teachers						
- Pre-university - COU*				93.2	92.9	
- Technical education				0.8	0.6	
- Students over 25				0.5	0.7	
- Other				5.5	5.8	

(1) Preparatory examination for higher education intended mainly for people who have not completed secondary education and wish to resume their studies.

* COU = University foundation course

TABLE 12 (contd.)

	1965	1970	1975	1976	1977	1978
FRANCE						
- Universities + IUT			(2)			
- BAC A, B, C, D			80.4	81.6	77.6	
- BAC E, F, G, H			8.3	15.2	15.6	
- Equivalent examinations			7.8	1.4	5.6	
- Special entrance examinations			2.3	1.2	0.9	
- Social advancement programme			1.2	0.6	0.3	
- IUT only						
- BAC A, B, C, D			50.1	49.4	47.2	
- BAC E, F, G, H			43.1	46.9	47.8	
- Equivalent examinations			2.5	1.1	2.7	
- Special entrance examinations			2.0	2.3	2.0	
- Social advancement programme			0.4	0.3	0.3	
ITALY						
- University, total						
- Secondary, general	44.2	37.4	45.0	45.3		
- Secondary, teacher training	18.1	19.4	12.2	12.0		
- Secondary, technical	34.8	40.2	37.9	35.3		
- Secondary, vocational	-	-	-	4.0		
- Other	2.9	3.0	4.9	3.4		
- Faculty of Arts						
- Secondary, general	35.1	27.2	36.4	35.1		
- Secondary, teacher training	55.1	58.6	39.5	38.2		
- Secondary, technical	7.0	12.6	19.1	20.2		
- Secondary, vocational	-	-	-	3.7		
- Other	2.8	1.6	4.9	2.7		
- Technology						
- Secondary, general	52.8	40.9	41.2	42.7		
- Secondary, teacher training	-	0.4	0.6	0.6		
- Secondary, technical	37.4	54.5	51.9	47.4		
- Secondary, vocational	-	-	-	3.8		
- Other	3.8	4.3	6.3	5.6		
- Economics						
- Secondary, general	14.3	19.3	26.4	30.2		
- Secondary, teacher training	-	3.0	4.4	3.9		
- Secondary, technical	82.6	75.4	64.4	58.4		
- Secondary, vocational	-	-	-	4.4		
- Other	3.1	1.2	4.9	3.0		
SWEDEN						
- University						
- Gymnasium (3 or 4 years)	86.3		56.8	54.0		
- Other secondary school-leaving certificates	0.7		4.4	5.7		
- Priority students	-		11.9	12.6		
- 25/5, 25/4 (3)	-		18.3	18.1		
- Adults with no secondary school-leaving certificate	-		-	-		
- Other	13.0		8.6	9.7		
- Total higher education						
- Gymnasium (3 or 4 years)					54.9	57.4
- Other secondary school-leaving certificates					6.7	9.4
- Priority students					6.4	5.5
- 25/5, 25/4					13.5	11.2
- Adults with no secondary school-leaving certificates					4.7	4.3
- Other					14.5	12.2

(2) Excluding the IUT.
(3) People of 25 and over who have five or four years' work experience.

the inflow into this level. This control is manifest in policies aimed at the reallocation of students within the system as well as in the more stringent selection procedures applied to school leavers with the traditional qualifications for entry to higher education. Of special significance - particularly in the Western European context - are the changes in policies vis-à-vis the access of this group.

(iv) The privileged link between academic secondary streams and universities

It is not surprising that the existence of restricted entry into universities is a far more sensitive and controversial issue in continental Europe than in other OECD countries. The fact that most European universities have had a long tradition of unlimited access is of course an obvious, but only partial, explanation. Of crucial significance in this context is the particular status of final examinations and certificates awarded by academic secondary streams which historically have fulfilled the double function of certifying successful completion of studies and of entitling holders to direct entry into universities. In France, for example, the baccaleaureat is formally considered as a higher education examination and thus can be said to fulfill in practice the role of a university entrance examination.

Thus, whereas in the non-European countries and the United Kingdom entry into universities is considered to be in a certain way a privilege and a decision which is basically left to the discretion of higher education institutions, in continental Europe it is understood as a basic right of qualified school leavers.

This constitutional or formal entitlement to proceed from secondary to higher education only applies to one case within the total post-compulsory sector, namely the transition from academic secondary streams to universities. At least in theory, this means firstly that, with the exception of the universities, any stream or institution, be it at the upper secondary or post secondary level, may restrict entry when faced with an excess in demand. Secondly, secondary school leavers from academic lines of study may be subject to selection for entry into all types of post-secondary institutions (even into vocational secondary schools) except when they apply to universities.

The alternative facing governments reluctant to expand universities at the same rate as secondary schools has been either to keep a tight control over the output of qualified school leavers with guaranteed access to universities (also achieved through maintaining a restricted definition of who qualifies), or to reduce the selective role of these

streams and abolish gradually some of their traditional rights. During the 1970s certain countries (e.g. Switzerland, Austria)(1) appear to have clearly favoured the first option, namely that of maintaining a relatively small academically-oriented pre-university sector with high transfer ratios to universities and maintaining students' rights to choose their study programmes and universities.

The majority of the European countries have moved towards the second option, that is, they have expanded general and academic type streams but in many cases gradually imposed transfer restrictions. Few, however, have abolished the legal entitlement to university entry of academic type diplomas. In Finland, Greece, Portugal, Sweden, the United Kingdom, such formal entitlement never existed or has been abolished; but the privileged link between academic lines of study and universities is still largely maintained. In Belgium, Denmark, France, Federal Republic of Germany, Netherlands, Norway, Spain, etc, school leaving examinations, (baccalaureat, matura, etc,) continue to grant the formal right of entry into universities. Since a long time these diplomas have been considered as one of the main pillars of a social selection process - based on merit or achievement rather than on inheritance - and thus viewed as a symbol of social justice. There are many who claim that in spite of their recognised drawbacks they are likely to be the last bastions of the educational system to disappear. Nevertheless, the conditions for their maintenance, reform of abolition continue to be central to the debates on selection and admission policies.

The changes which have taken place, both in terms of the economic and social value of these certificates and of their real value as qualifications for university entry, are mainly the result of growth in the number of certificate holders and also of slow, frequently disguised but significant changes in the access conditions of universities.

(v) Towards restrictive entry in universities of continental Europe

As the pool of qualified applicants grew at a rapid pace in the 1960s, a first step taken in some countries, whether as a means of orientation or as a way of keeping a certain control over the flow and distribution of new entrants within the university sector, was the setting of more specific requirements for entry into the different faculties. These requirements were defined primarily in terms of lines of study, specialisation or subjects chosen at the upper secondary level. Although more upper secondary lines of study granted qualifications for university entry

(1) Educational Policy and Planning: Higher Education and Research in Austria, OECD, Paris, 1975.

(i.e. a wider range of general streams and a growing number of technical streams), in a number of countries choice of a particular stream became increasingly important in determining subsequent choice of university studies. France provides a clear illustration of this trend. As in 1977, 92% of students who obtained the Baccaleureat in Humanities, enrolled in the Law and Humanities Faculties, 82% of those completing Mathematics - the only line of study which qualifies for all higher education programmes - enrolled in Sciences, Medicine and Pharmacy.

Another measure aimed at keeping a closer control over student intake has been that of gradually assigning more weight to performance at the upper secondary level. Without going as far as setting a fixed number of places available, a growing number of traditionally open access Faculties or Departments confronted with "excessive" demand started setting requirements in terms of marks obtained in the course of studies or in the final school leaving examination (see Chapter IV).

Policies designed to ensure a more balanced geographical distribution of higher education provision, although formally intended to favour the participation of new groups, have also had the effect of narrowing university choices for some qualified candidates. For quite some time certain universities, generally those located in large urban centres or under strong demand because of their quality or prestige, could apply entry restrictions; the argument being that, in theory at least, students had the possibility of pursuing similar studies in other regions or institutions.

Gradual restrictions at the level of access and, not least, the multiplication of informal selection procedures operating after entry, especially during the first year of studies, represented last attempts at coping with increased student demand without having to tackle in a more global and direct way the sensitive issue of numerus clausus. But it is evident that such measures paved the way towards the ultimate adoption of policies aimed at introducing numerical limitations at the overall national level within certain sectors of the university system, or in some cases within the university system as a whole.

Some of the advantages and drawbacks of restricting entry or choice for certain categories of secondary school leavers have been discussed above and are also dealt with in Chapter IV. The point which could be made at this stage is that selective admission in universities is to a certain extent the characteristic of educational systems which have

succeeded in reducing selection at the secondary level and postponing it to a later stage. Indeed, countries with quasi universal secondary education (Canada, United States, Japan, USSR) have had selective universities for a long time whereas many of the European countries started or accelerated the introduction of restricted entry after a period of massive growth of qualified school leavers.

Thus, contrary to what is often claimed, support for free access to universities may, and sometimes does, indicate explicit or implicit support for maintaining the selective role of secondary education, especially when there is a simultaneous refusal to accept large numbers of drop outs in the course of higher education. For, having accepted that post-compulsory education has a selective function, it follows that maintaining open access at entry necessarily implies imposing greater restrictions before and/or after entry(1).

The controversy could be further heightened by arguing that certain forms of restricted access to universities may in fact prove to be an effective strategy for accelerating the expansion and democratisation of secondary schools. Governments may be more willing to adopt policy measures designed to expand and diversify the upper secondary level, if it is clearly understood that final secondary school qualifications will not automatically entitle or guarantee leavers direct entrance to universities.

The consequence of limiting entry or of closer government control at the level of access into certain university fields of study depend to a large extent on the rules and criteria being adopted. In this respect considerable variations can be found between countries as well as within countries over time.

(vi) Admission policies: variations within countries

A major obstacle to a review of trends and to international comparisons in this area is that in recent years access policies as well as admission procedures have been subject to rapid and sometimes drastic changes in most Member countries.

Most countries have by now some fields of study where numerical limitations are applied throughout the country as a whole on a more or less permanent basis. The typical example is that of medical faculties, often the first and no doubt the most constant, in maintaining such

(1) Ladislav Cerych: Access and Structures, Institute of Education of the European Cultural Foundation, Paris, 1975.

a policy. At present, with the exception of Italy, Austria and Switzerland, medical studies are subject to a numerus clausus policy in all OECD countries. In many cases other health related fields, e.g. pharmacy, dentistry, biology, affected by the overflow of rejected applicants to medicine, have been quick to adopt similar restrictive measures.

However, in addition to a quasi-permanent selective sector, many countries have a range of programmes whose access policies may vary from stringent selection to free entry depending on whether demand exceeds or not the supply of places made available. Indeed, maintaining such flexible arrangements is often considered an essential element of admission policies aimed at avoiding the establishment of a clearly defined selective sector.

Also, as in the case of Sweden and Germany, policies vis-à-vis numerus clausus have changed quite substantially over a rather short time span. In Germany, before 1977 the Federal as well as many Länder governments supported rather strongly the introduction and generalisation of numerus clausus within universities. As a result, the number of fields of study with restricted entry, or subject to a centralised placement procedure grew constantly from 10 in the summer semester of 1974, to 26 in 1976 and was expected to cover 43 subjects in the winter semester of 1976/77(1). Inability to establish selection devices which complied with the ruling of the courts about the legal rights of Abiturienten, increased bureaucratisation and the trend among a growing number of unsuccessful university candidates to take jobs or enrol in school/training schemes designed for young people with lower levels of qualifications, were among the factors which led to a drastic change in government policy. In a few years the trend reversed completely so that by the end of the decade, as a result of the policy of opening up and of overcrowding universities and of a certain slackening in the demand for university education, the number of numerus clausus subjects was reduced to 10.

In Sweden the change of government in 1976 led to the rejection of the U.68 Commission proposals of applying restricted entry to all university lines of study. The principle of applying selection for the majority of university programmes was kept but certain lines determined by the central authorities remained open. The debate on whether or not to maintain open access lines of study continued and in June 1979 the Parliament decided that numerus clausus could be introduced in all seotors and

(1) Admission to Higher Education in Germany, OECD, Paris 1976 (mimeo).

programmes of higher education when demand exceeded the number of places available.

(vii) Admission Policies: variations between countries

Although countries in the OECD area have been facing over the past years many common problems and indeed the large majority has moved in the direction of greater control over the student intake, the picture emerging in the early 1980s continues to be one of considerable contrasts. It is not merely a question of the well-known differences in history and traditions, in priorities and viewpoints on the functions of higher education, but also of the political climate and the actual freedom of action of governments in introducing and carrying through highly controversial reforms.

Even within continental Europe the policy of setting restrictions to the demand for university education cannot be said to have been generally applied. Over the 1970s Italy, Switzerland and Austria have largely maintained "open access" policy within their universities. Given the fundamental differences between Swiss and Austrian educational systems and the Italian one, such a policy had of course radically different features and implications. In Italy, it reflected support - or resignation according to many observers - for opening up the universities to mass education, a particularly drastic measure in view of the fact that this country did not have nor did it develop a non-university sector and that short cycle programmes within universities enrolled only a very small percentage of the student body.

By 1976 37% of the relevant age group qualified for university entry and new entrants to Italian universities represented 31% of the 19-21 age group. On the other hand, in Switzerland such a policy implied primarily the preservation of the traditional entitlement to free access and choice for a minority of academic school leavers (8,4% of the relevant age group) rigorously selected at an earlier stage and trained almost exclusively with a view to pursuing university studies.

At the other extreme are countries like Greece, Turkey and Finland where demand exceeds by far the total capacity of their higher education systems and, more recently, Sweden and Denmark with a more balanced relationship between supply and demand but nonetheless moving in the direction of planning or actually introducing entry restrictions within all segments of the post-secondary system.

In Greece, for example, in spite of the fact that the number of places almost doubled from 1968 to 1977, (Greece had the highest growth rates in the OECD area during the early 1970s) the proportion of candidates admitted within the total system remained at around 25%(1). The chances of entering the university sector, however, have been considerably reduced, from 29% of successful applicants in 1968 to 18.2% in 1977. Within these low admission rates considerable variations exist among fields of study ranging from 10.6% of applicants admitted in medical studies to 25.4% in languages and law combined(2). Reforms introduced at the secondary level have had as a prime objective both to reduce the overall demand for post-secondary education and to enhance participation in short cycle technical education.

In recent years the Greek government eliminated the general entrance examination into the universities and introduced instead two sucessive national examinations to be taken in the course and at the end of upper secondary education. These examinations together with average grades in school are taken into account in calculating a composite index for selection into higher education(3). The dangers of having a selection formula in which crucial and irreversible decisions are taken at an early stage need not be repeated, and at present they are at the centre of the debates on educational policy in Greece.

In Finland numerus clausus is now current practice in all institutions and fields of study. The number of students seeking admission to higher education far exceeds the number of those that can be accepted(4). By the late 1970s, the ratio of applicants to admissions was between 4:1 and 3:1 with variations according to field of study (theology 1.5:1, technology 12:1)(5).

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(1) Politiques d'admission dans l'enseignement supérieur en Grèce, OECD, Paris 1978, (mimeo).

(2) Greece, ibid, p.23.

(3) Educational Reforms in Greece, OECD, Paris, 1980.

(4) Admission to Higher Education in Finland, OECD, Paris 1977 (mimeo)

(5) Admission to Higher Education in Finland, ibid.

The situation is far less dramatic in Sweden and Denmark particularly in view of the levelling off if not a decrease in demand for full-time studies. However, notwithstanding certain differences, it is interesting to note that these Scandinavian countries share many viewpoints on the issue of access. Having all of them taken the political decision to slow down the expansion of educational provision at the post-secondary level, it is argued that a key concern should be that of reducing the prevailing inequalities in participation; an objective which can only be achieved by broadening the definition of demand and exercising a much closer control over the student intake so that groups with different social and educational backgrounds are given a greater chance of competing for entry.

In Finland, on the basis of an Act of Parliament passed in 1978, the Ministry of Education has prepared a plan aimed at increasing the proportion of students coming from vocational education. By the end of the century 20% of the annual openings in higher education will be reserved to school leavers from vocational streams(1). As stated in one of the Finnish reports: "Measures for expanding quotas for students other than those who have completed upper secondary school are based on the principle that vocational education should be made a channel to higher education competitive with the upper secondary school. The attraction of vocational education will probably be greatly enhanced if it can offer the student better opportunities for entering higher education as well"(2).

Another objective, particularly stressed in Sweden during the early 1970s and more recently in Denmark, is that of increasing the participation of adults, thereby also changing the relative weight between the initial and recurrent education functions of post-secondary education. One of the differences between these countries and others showing a similar concern for decreasing group disparities, is that they openly admit that in higher education programmes with strong demand, the acceptance of adults with work experience may imply leaving out leavers from academic secondary streams with very good grades. It is of interest to note that at present Sweden faces the opposite problem, namely that of having to design an admission system which at least partially redresses the balance in favour of young qualified school leavers.

A third consideration mentioned in these countries is that greater uniformity in entry conditions and

(1) Integration of Secondary and Higher Education, National Contribution of Finland to Conference on Policies for Higher Education in the 1980s.

(2) Admission to Higher Education in Finland, ibid, p.16

regulations across the total system of higher education may be one way of avoiding strong hierarchical differentiation between the various types of institution or fields of study. This argument was used by the U.68 Commission in Sweden when advocating a policy of restricted entry for the entire post-secondary system rather than closing only certain lines of study.

Whatever the advantages of maintaining a relatively closed post-secondary system, it is clear that the success, or even the viability, of such a policy in liberal societies will depend on the following conditions:

(i) that the curricula and organisation of studies at the upper secondary level, in particular in the pre-university streams, take account of increased entry restrictions in higher education and equip students for other training or employment options;

(ii) that these other opportunities, whether in education/training or in employment, be made available to young people - an obvious minimum requirement but which present societies seem increasingly unable to fulfill;

(iii) that these options be perceived as meaningful alternatives to initial higher education; this is more likely to be the case in countries where, for a variety of economic and social reasons, higher education has become a less attractive option than in the past;

(iv) that the advantages of recurrent education over initial training also be made apparent - a rather difficult proposition to accept so long as the more privileged groups in terms of talent and social origin choose to take the latter option. Even in cases where secondary school leavers represent a smaller fraction of the student intake, the fact that in the competition for entry it is those who perform best who are "rewarded" with direct access, implies recognition that initial education still represents a privileged option. A reduction in the number of places made available to these groups without due consideration of these factors risks enhancing the attraction of initial education - not least because of its scarcity - and correspondingly accentuate tensions due to unsatisfied demand.

As with most reforms designed to limit access to young school leavers, much of the hope for their success is based on future demographic trends. Indeed the decrease in the college age cohorts may well represent the single most important factor in easing the strains inherent to measures of positive discrimination.

With the exception of Italy on the one hand and Greece, Finland, Sweden and Turkey on the other, OECD countries can be expected to enter the decade of the 1980s having post-secondary systems which still comprise a combination of relatively open and restricted entry sectors. Reforms within individual countries as well as differences among countries essentially relate to changes in the mix and in the balance between the sectors but have not resulted in totally "closed" or "open" post-secondary systems.

In the non-European countries as well as in the United Kingdom the traditional binary distinction between a selective university sector and a less selective or open access non-university sector has not been substantially altered during the last decade. But at least in the United States, Canada and Japan, faster growth of the non-university sector seems to indicate a move towards greater openness of the overall system.

In continental Europe some countries, Switzerland and Austria, for example, have largely maintained the binary distinction between, on the one hand, a university sector with free access and choice for qualified school leavers and a non-university sector with restricted entry for a larger pool of candidates on the other. The majority of European countries which are in the process of introducing numerical limitations within certain university fields of study have in fact extended the coverage of the selective sector(1).

This does not necessarily mean that in these countries entry into higher education has been rendered more difficult. The existence of a free sector, the expansion of provision within the restricted entry sector, aided in some cases by the recent stabilisation in demand, have prevented a serious imbalance between supply and demand.

However, one consequence of having a wider spectrum of university programmes with restricted entry has been the narrowing of choices open to young secondary school

(1) Levy Garboua has shown the extension in France: in 1951/52 25% of students were enrolled in the higher education sectors with restricted entry; in 1971/72 the proportion was 30% and in 1975/76 39%. See: La selection dans l'enseignement supérieur français: Une synthèse des travaux statistiques récents, OECD, Paris 1977 (mimeo).

graduates and of decreasing the chances of candidates with average scores in secondary schools of enrolling in programmes of their first choice or ranking high in demand.

Another consequence, already discussed in Chapter II, is the development of a new pecking order, sometimes a clear split, between programmes or institutions with restricted entry - whether university or non-university type - and those with open access. The introduction of restricted entry within a relatively wide range of university options is having the quite natural effect of raising the prestige of those programmes with restricted entry while decreasing the relative attraction of those options where access remains open. These hierarchical differences become stronger when, in a tight labour market situation, the restrictions applied are justified or are being perceived as related to the availability of jobs: whereas access to the selective sector is seen as a guarantee of employment, access to the open sector is at best a way of increasing the chances in the competition for the better jobs, at worst a way of avoiding immediate unemployment ("parking" function).

Without attempting to establish a strict causal relationship, one could interpret recent trends in demand in the light of the fading attraction and prestige of certain university programmes. In countries where the total number of new entrants to post-secondary education has increased only slightly or remained stagnant, this may be due to the fact that candidates who are actually rejected in the competition for entry or, even more, those who see their chances of entering selective programmes as very dim, choose to abstain from pursuing post-secondary studies rather than enrolling in the open access sector.

Such an hypothesis could be substantiated only on the basis of surveys undertaken among school leavers or on the actual destination of rejected candidates. In the absence of individualised data, however, there are some trends which point to a growing disaffection with certain types of university studies and the emergence of a "pecking order" which cuts across the traditional university, non-university type distinctions.

In the first place there is evidence of increased "self selection" in countries where transfer rates have declined (see Table 8). Secondly, the decrease in transfer rates to universities acquire particular significance in countries where the slowdown in demand for university places coexists with a tightening in the competition for entry into selective programmes, in particular within the short

cycle or non-university sector. This appears to be the case in France(1), Sweden and Denmark. It would be interesting to know whether the non-university sector is attracting a clientele of academic secondary school leavers which a few years ago would have opted for long cycle or academic type studies. The "cascade effect" could be to provoke a narrowing of opportunities for candidates coming from secondary level technical streams, i.e. less privileged groups for whom these options represented the natural follow up, sometimes the only possibility, of pursuing post-secondary studies. Also significant is the coexistence of lower transfer rates with growing demand on the part of qualified school leavers for short vocational courses or training schemes outside the formal sector or offered by a growing number of vocational secondary schools.

Finally, students behaviour after entry can also be taken as a significant indicator of the relative attraction and prestige of different university programmes as well as their vulnerability in the light of expected trends in demand during the 1980s.

As mentioned in Chapter II, the fact that a relatively high proportion of new entrants to higher education institutions never obtain a degree or diploma, or do so with considerable delay, is a topic of major concern in many Member countries. At the same time, there is growing controversy over the use of such terms as "drop-outs", "wastage" or "inefficiency" in referring to this phenomenon. It is clear that with the greater heterogeneity of the student population and with more diverse modes of attendance, the definition, measurement and analysis of the implications of departures in the course of higher education studies pose extremely complex problems both of a technical and a conceptual nature. Among the difficult questions raised are: how to distinguish between students who definitely quit the system, those who interrupt their studies, those who transfer to another programme or institution, etc; under what conditions are departures without a degree to be considered as "wastage" or "failure"; and if the concept of failure is introduced does it apply to individuals or to the institutions?

It is not possible to engage here in a detailed discussion of these questions. The aim of this brief section is merely to give some illustrative examples of how selection and self-selection operate in the course of higher education studies, relating the analysis whenever possible to points raised in the previous sections.

Evidently, systems, programmes or institutions with unrestricted access - usually also associated with large teacher/student ratios and long duration of studies - tend to have a higher proportion of students who leave without obtaining a final qualification. Tables 15 and 15bis give very rough indications on this relationship. As is well-known, the high graduate output in the United Kingdom in relation to enrolments is clearly linked to the relatively small proportion of the age-group enrolling in higher education and, above all, the short duration of degree

TABLEAU 7.13 / TABLE 7.13

EFFECTIF TOTAL ET EFFECTIF DES DIPLOMES

TOTAL ENROLMENT AND GRADUATES IN HIGHER EDUCATION

		Effectif (milliers) Enrolment (thousands)	Diplômes (milliers) Graduates (thousands)	% Diplômes Percentage of Graduates
ALLEMAGNE/ GERMANY	1972 (1)	533.5	70.1	13.1
AUSTRALIE/ AUSTRALIA	1970	111.1	32.8	29.5
	1974	156.1	46.5	29.4
AUTRICHE/ AUSTRIA	1965 (1)	48.9	5.2	16.6
	1973 (1)	73.6	6.3	8.6
BELGIQUE/ BELGIUM	1965 (1)	48.8	7.2	14.8
	1970 (1)	73.1	10.8	14.6
	1973 (1)	79.5	12.9	16.2
CANADA	1965 (1)	206.2	43.2	21.0
	1970 (1)	356.7	79.3	22.2
	1974 (1)	417.2	91.2	21.9
DANEMARK/ DENMARK	1965	48.1	6.9	14.3
	1970	69.4	10.4	15.0
	1973	89.5	13.6	15.2
ESPAGNE/ SPAIN	1965	274.1	8.6	3.1
	1969	320.4	12.8	4.0
	1974	484.8	41.1	8.5
ETATS-UNIS/ UNITED STATES	1965	5.526.3	821.4	14.9
	1970	7.920.2	1.331.2	16.8
	1973	8.519.7	1.409.4	16.5
FINLANDE/ FINLAND	1965	56.2	6.3	11.2
	1970	75.2	9.2	12.2
	1974	86.4	10.9	12.6
FRANCE	1966 (1)	477.3	56.0	11.7
	1972 (1)	791.3	105.5	13.3
GRECE/GREECE	1965	64.3	6.6	10.3
	1968	84.0	9.7	11.5
	1974	(112.0)	17.0	(15.2)
IRLANDE/ IRELAND	1965	20.7	5.0	24.2
	1974 (1)	20.8	7.1	34.1
ITALIE/ ITALY	1968	574.6	47.9	8.3
	1973	879.3	74.2	8.4
JAPON/ JAPAN	1966	1232.1	247.1	20.1
	1970	1665.4	378.2	22.7
	1973	1899.9	448.9	23.6
NORVEGE/ NORWAY	1965 (1)	19.1	2.0	10.5
	1970 (1)	28.7	3.7	12.9
	1973	67.7	14.6	21.6
NOUVELLE-ZELANDE/ NEW ZEALAND	1965	22.1	3.2	14.5
	1969	23.5	5.2	22.1
	1973	29.0	7.1	24.5
PAYS-BAS/ NETHERLANDS	1965	119.9	26.2	21.9
	1969	164.8	35.6	21.2
	1973	202.5	35.8	17.7
PORTUGAL/	1965	14.9	2.7	7.7
	1973	69.4	7.6	11.6
ROYAUME-UNI/ UNITED KINGDOM	1966	213.8	56.6	26.5
	1970	277.5	78.7	28.4
	1973	307.3	80.4	26.2
SUEDE/SWEDEN	1966	99.3	13.5	13.6
	1972	138.6	29.3	21.1
TURQUIE/ TURKEY	1969	97.3	10.6	10.9
YOUGOSLAVIE/ YUGOSLAVIA	1965	189.0	29.3	15.8
	1970	261.2	32.8	12.6
	1973	320.5	43.7	13.3

Note : (1) Universitaire seulement/University type only.

Source : Effectifs, d'après le Tableau A7.1. Enrolment, based on Table A7.1. Diplômes, d'après: Annuaires de l'UNESCO. Graduates, based on Statistical Yearbooks (UNESCO)

Table 13 bis

Admission Rates in 1970/71 and Graduation Rates in 1976/77

	Number of New Entrants to University Type Higher Education in Relation to Relevant Age Group(1) 1970/71	Number of First Degrees Awarded in Relation to Population aged 24(2) 1976/77
Austria	11,6	3,3
Belgium	13,2	6,6
France	19,9	8,3
Germany	10,4	4,6
Italy	23,6	8,6
Japan	17,1	16,7
Netherlands	8,3	5,3
Sweden	29,0	10,5
United Kingdom	10,7	7,5
United States	29,2	26,9

(1) For definition of Relevant Age Group see Table 11.

(2) L. Cerych, S. Colton, J.P. Jallade: Student Flows and Expenditure - Institute of Education, Paris, 1981.

Sources: New Entrants : Education Statistics in OECD Countries, OECD, Paris, 1981

courses and high teacher/student ratio which has so far prevailed. On the other hand, Italy, France and Spain - all countries where in the early 1970s most or all university faculties had free access - have also the lowest percentage of graduates. Low graduation rates for Sweden are mainly due to the high proportion of mature students enrolled in single courses.

More accurate and pertinent indications are provided in Table 14 which shows the evolution of drop-outs in Italian universities during the years in which access was liberalised. In 1960, the last year with restricted entry, one student in eight dropped out during the first year of study, whereas the figure rose to more than 25% in 1973. Moreover, as pointed out by the authors of this study, "the years in which the drop-out rate increased more rapidly - 1965 and 1969 - were the years in which the liberalisation measures came into effect and there was the greatest increase in new netrants. Faced by a sharp increase in the number of new entrants and at the same time by a change in their composition (increase in the proportion of new entrants coming from schools other than the classical and scientific), the institution's "reaction", was a marked increase in the drop-out rate"(1).

In France, the period of rapid expansion was also accompanied by an increase in the number of drop-outs: "whereas in 1964, 47% to 60% of new entrants completed the first two years of university studies, in 1975 only one out of three or four new entrants attained this level(2)". Regional surveys of institutions show that faculties with open access, e.g. Law, Humanities, Pure and Natural Sciences, have consistently higher drop-out rates than institutions with restricted entry such as the Grandes Ecoles, Faculties of Medicine or the IUTs(3). Departures tend to be concentrated in the first year or first cycle of university studies. In the mid-1970s the proportion of first-year university students in France that did not even present themselves for their examinations was 41% in Letters, 43% in Economics and 32% in Law(4). Official statistics give the following figures:

(1) C. da Francesco and P. Trivellato: 'Drop-Outs from Italian Universities: 1960-1975; in Paedagogica Europea, Vol.XII, 1975, p.88.

(2) L. Garboua, "Les Demandes de l'Etudiant ou les contradictions de l'Université de masse", Revue Française de Sociologie 17, No.1, 1976.

(3) La Sélection dans l'enseignement supérieur français. Une synthèse des travaux statistiques récents, OECD, Paris, 1977 (mimeo) p.39.

(4) G. Lassibille, L. Levy Garboua et al: De l'inefficacité du système français d'enseignement supérieur, CREDOC-IREDU.

Table 14

EVOLUTION OF NEW ENTRANTS AND DROPOUTS IN ITALIAN UNIVERSITIES (1)

Academic year of matriculation	A New entrants in year t	B Enrolments for the second year of course in year t_{+1}	(A-B) Dropouts during the first year of course	$\frac{(A-B)}{A} \cdot 100$	C Enrolments for the third year in the year t_{+2}	(A-C) Dropouts during the first and second year	$\frac{(A-C)}{A} \cdot 100$	D Enrolments for the fourth year in the year t_{+3}	(A-D) Dropouts during the first, second and third year	$\frac{(A-D)}{A} \cdot 100$
1960/61	59 708	51 606	8 102	13.6	44 812	14 896	24.9	42 716	14 732	25.
1961/62	65 214	55 439	9 775	15.0	46 974	18 240	28.0	44 622	18 357	29.
1962/63	75 058	61 994	13 064	17.4	53 381	21 677	28.9	50 515	21 915	30.
1963/64	77 227	63 560	13 667	17.7	56 704	20 523	26.6	53 791	20 736	27.
1964/65	86 397	73 304	13 093	15.2	65 551	20 846	24.1	61 702	21 706	26.
1965/66	105 480	86 009	19 471	18.4	73 227	32 253	30.6	69 891	33 035	32.
1966/67	119 840	94 402	25 438	21.2	86 528	34 312	26.6	81 452	35 030	30.
1967/68	125 265	102 999	24 266	19.1	94 631	32 634	25.6	93 946	30 175	24.
1968/69	142 653	118 156	24 497	17.2	107 907	34 746	24.4	104 915	34 207	24.
1969/70	175 249	137 720	37 529	21.4	125 811	49 438	26.2	114 794	57 010	33.
1970/71	194 280	154 591	39 689	20.4	133 460	60 820	31.3	121 749	69 298	36.
1971/72	214 417	160 808	53 609	25.0	141 641	72 776	33.9	130 804	80 374	38.
1972/73	213 226	159 228	53 998	25.3	140 598	72 628	34.1	129 090	81 102	38.
1973/74	213 619	158 031	55 588	26.0	141 052	72 567	34.0			
1974/75	231 075	166 625	64 450	27.9						

Notes: whereas in the other columns also diploma course students were considered, the figures in the last and last but one columns were calculated considering only the relevant new entrants in degree courses. We did so because the length of a diploma course is never of four years (minimum length of a degree course). The number of new entrants by sex in degree courses and in diploma courses can be seen in Table A in the appendix.

(1) Table extracted from C. de Francesco and P. Trivellato, "Drop-outs from Italian Universities: 1960-1975" in Paedagogica Europaea, Vol. 12, 1977-3

Table 15

Comparison of enrolments during the first two years of study and of examination results or diplomas, by disciplines

Year 1976-1977	Law	Economics	Letters	Pure Sciences	Medicine	Dentistry	IUTS
First year students	37 042	13 862	66 020	29 128	PCEMI 40 950		28 001
Passed examinations %					10 811 26,4		
Second year students	17 502	7 187	32 424	13 809	9 744	2 904	18 492(2)
Relation with first year students %	47	52	49	47			70
Completed successfully second year %(1)	9 117 52,1	4 530 63,2	15 946 49,2	7 466 54,1	9 288 95,3	1 803 82,1	6 153 87,4

(1) Calculated by relating the number of students who succeeded in the examinations in relation to the number of second year students.

(2) Including special year.

Source: Etudes et Documents, L'Enseignement Supérieur en France, Etude Statistique et Evolution de 59/60 à 77/8, Ministre de l'Education et Ministre des Universités, 80.2, p.32

Of particular interest is a French study which shows that, contrary to the general belief, if the effect of length of studies is controlled, Faculties of Medicine and of Dentistry which have strict numerus clausus are globally less selective than the Faculties of Science and as selective as Law Faculties, both of which have open access policies(1). It is furthermore noted that the severe screening which takes place in the Science Faculties cannot be linked to student aptitudes since these Faculties recruit 90% of their students from the more "noble" or selective lines of study in secondary schools. The point made is that, having accepted the existence of an inverse correlation between the degree of selectivity at entry and that which occurs after entry, differences in drop-out rates between programmes cannot be accounted for only, or even primarily by variations in admission policies. In addition to length of studies one factor which is considered crucial in determining students' propensity to complete successfully a degree course is the perceived economic and/or social value of the degree awarded.

Table 16 on drop-outs in Italian universities, shows that in a country where all disciplines have open access, Medicine is the subject with lowest drop-out rates. It is of interest to note that Medicine also has the highest percentage of traditional students, that is, coming from academic type secondary schools, from families with relatively high levels of educational attainment and who attend courses on a full-time basis. At the other extreme are subjects such as Pedagogics, Literary Subjects or Sociology with the highest drop-outs and at the same time the highest proportion of "non-traditional" students.

In other countries also, there is evidence that in recent years, with the deterioration in the employment prospects for graduates, there has been a change in student behaviour both in the choices of options and in how they participate in higher education. On the one hand, there seems to be a stabilisation, and in certain cases a growing proportion, of the traditional type of student (male, middle-class origin, high achievers) in higher education institutions or programmes more likely to guarantee high economic and social rewards. In these elite tracks, most with restricted entry and with few possibilities of studying part-time, student chances of success are relatively high, even though it is claimed that considering the fierce competition for entry and the grades of those admitted, performance is not always very satisfactory. On the other hand there are other disciplines or institutions

(1) L. Garboua, ibid.

Table 16 (1)

New Entrants to University in 1973/74 by Subject, Dropout Rates During the First Year and Characteristics of New Entrants (percentages)

Subject	Dropout Rate[1]	General Secondary School Graduates[2]	Sons of University or Secondary School Graduates[3]	Do Not Work or Seek Job[4]
Mathematics	29.5	58.9	27.7	56.6
Physics	41.0	36.3	24.4	36.0
Chemistry	26.5	55.5	31.1	53.2
Geology	40.0	29.4	24.8	36.5
Computer Studies	42.8	38.8	21.0	45.6
Natural Science	35.7	46.3	28.5	50.4
Biology	26.0	58.5	28.5	54.4
Pharmacy	12.4	56.1	34.5	55.2
Medicine	7.6	81.0	42.1	66.1
Engineering	25.6	39.2	27.2	50.4
Architecture	22.8	28.9	31.6	38.5
Agronomy	30.1	31.3	25.2	39.8
Veterinary Medicine	18.5	49.2	32.7	48.7
Economics and Commerce	43.5	20.0	23.7	29.8
Politics	38.4	27.8	23.8	22.3
Sociology	39.7	19.2	21.5	22.4
Law	27.3	48.8	36.0	37.2
Letters	12.7	71.5	42.4	48.1
Literary Subjects	33.7	3.2	18.8	45.1
Philosophy	12.3	68.7	34.8	40.7
Pedagogics	33.7	3.0	16.5	42.0
Modern Foreign Languages	21.1	52.6	34.9	44.4
Foreign Languages	30.6	15.4	25.3	46.2
Psychology	31.1	26.9	30.4	33.1
Total (All Subjects)	26.0	43.0	30.6	44.4

[1] "Dropout rate" is the proportion of 1973/74 new entrants who dropped out during their first year of university.

[2] "General secondary school graduates" is the proportion of 1973/74 new entrants who come from general secondary schools (*licei*).

[3] "Sons of university or secondary school graduates" is the proportion of 1973/74 new entrants who are sons of secondary school or university graduates: because of the lack of other indicators I consider this level of educational attainment as an indicator of upper-middle or upper social origin.

[4] "Do not work or seek job" is the proportion of 1973/74 new entrants who declared they did not work and did not intend to seek work.

Sources: for the dropout rate: ISTAT, *Annuario Statistico Italiano* 1975 and 1976.
For the characteristics of new entrants: ISTAT, *Indagine Speciale sulle Caratteristiche degli Studenti Universitari Iscritti al I Anno di Corso*. Rome, 1977.

(1) Table taken from : C. de Francesco "The Growth and Crisis of Italian Higher Education During the 1960s and 1970s" in Higher Education, Vol. 7, n°2, May 1978- Elsevier.

which, because they represent the open access sector and/or their graduates face difficulties in a depressed labour market, recruit a far wider range of students who attend higher education for very diverse reasons. Their situation is far more complex to define or analyse and, as already pointed out, they do indeed represent the more inefficient options in terms of the number of entrants not obtaining final qualifications. Their case calls for more sophisticated measurement of wastage or inefficiency and for more ingenuity in the interpretation of selection or self-selection after entry. The following factors need to be borne in mind in any such discussion.

Firstly, as already mentioned, many of these programmes have the explicit or implicit function of selecting after entry; whatever the economic and social disadvantages of this policy, it is clear that delayed selection gives chances to many students who on the basis of limited entry would be excluded. Secondly, students frequently use these options as a means of circumventing programmes with selective entry and enrolling at a more advanced stage through special transfer schemes. Thirdly, there is the phenomenon of multiple enrolment and the use of these subjects or institutions as reserve or "fall-back" options by students competing for entry elsewhere. Fourthly, quite frequently these options have a more flexible organisation of studies and therefore attract mature students many of whom attend without the intention of completing a programme or obtaining a final qualification.

There is considerable debate as to the impact on the behaviour of students in their initial education of a depressed labour market situation or a decrease in private returns to certain types of higher education studies. The French study referred to above claims that, under these conditions, students tend to devote less time and efforts to completing their studies and prefer either to take a job or spend more time in leisure activities. What has been called the "penalty effect" is however also in operation: students are aware that although university credentials do not guarantee high level jobs they are nonetheless essential in the competition for these jobs and in maintaining or increasing their social status. In other words, the penalty for non-graduation tends to increase(1) so that students are under stronger pressure to complete their studies.

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(1) R. Geiger: "The Limits of Higher Education: A Comparative Analysis of Factors affecting Enrolment Levels in Belgium, France, Japan and the United States", Yale Higher Education Research Group, Working Paper YHERG - 41.

One conclusion which could be drawn from this discussion is that, precisely as some type of academic qualifications cease to ensure access to higher positions in society and pursuit of higher education studies becomes more of a "gamble", there are wide differences in students' behaviour depending, on their chances of winning and, even more, on the risks involved in losing in such a gamble. It is the social and economic implications of this type of development which will need close monitoring by institutional leaders and governments in the years ahead.

ALLEMAGNE/GERMANY

REPARTITION DES ETUDIANTS PAR ORIGINE SOCIO-PROFESSIONNELLE/
DISTRIBUTION OF STUDENTS BY SOCIO-ECONOMIC ORIGIN

	Travailleurs indépendants/ Independent workers	Fonctionnaires/ Civil servants	Employés/ White collar workers	Ouvriers/ Blue collar workers	Autres/Others	Total = 100.0	Total en milliers/ Total (thousands)
I. Supérieur universitaire /University Sector (1)							
1966 (2)	30.9	28.6	31.8	6.5	2.2	100.0	40.7
1970	26.5	25.2	34.0	12.0	2.3	100.0	66.1
1975	22.8	22.6	36.7	15.0	2.9	100.0	91.5
1977 (3)	21.3	21.8	37.1	14.8	5.0	100.0	95.2
II. Supérieur non-universitaire/Non University Sector							
Ecoles des Beaux-Arts/Fine Arts Schools							
1966	26.7	28.5	31.5	7.4	5.9	100.0	0.8
1970	24.1	24.4	35.9	9.2	6.4	100.0	1.3
1975	22.0	24.6	39.1	10.6	3.7	100.0	1.6
Ecoles techniques supérieures/Higher Technical Schools							
1966	25.3	20.4	33.3	17.5	3.5	100.0	21.9
1975	21.8	14.4	32.8	27.6	3.4	100.0	34.1
1977	21.5	14.3	33.5	26.7	4.0	100.0	35.4
III. Total supérieur /Total Higher Education							
1966	28.9	25.8	32.3	10.3	2.7	100.0	63.5 (2)
1970 (4)	26.5	25.2	34.0	11.9	2.4	100.0	67.4 (4)
1975	22.5	20.5	35.7	18.2	3.1	100.0	125.3
1977	21.4	19.8	36.1	18.0	4.7	100.0	130.6

Notes : (1) Universités, Ecoles Normales, "Gesamthochschulen" /Universities, Teacher training schools, "Gesamthochschulen".
(2) Sans les Ecoles Normales/Teacher training schools excluded.
(3) Y compris les Ecoles des Beaux-Arts/Fine Arts schools included.
(4) Sans les Ecoles Techniques Supérieures/Higher Technical schools excluded.

Source: Grund und Struktur data, 1977, p. 90 et 1979, p. 140.

FRANCE

ORIGINE SOCIALE(1)DES ETUDIANTS UNIVERSITAIRES/ SOCIAL ORIGIN(1)OF UNIVERSITY STUDENTS

	65/66	70/71	75/76	76/77	77/78	78/79
Agriculteurs exploitants/Farmers	5.8		5.6	5.5	5.4	5.2
Ouvriers agricoles/Farm workers	0.6		0.5	0.4	0.4	0.5
Patrons de l'industrie et du commerce/Industrialists and tradesmen	14.9		11.4	11.2	10.9	10.5
Professions libérales et cadres supérieurs/ Professionals and higher level executives	29.0		33.3	33.6	33.7	30.7
Cadres moyens/Middle level executives	16.7		17.0	17.1	17.5	15.6
Employés/Clerks	8.7		3.3	2.3	0.1	8.2
Ouvriers/Blue collar workers	9.5		12.4	12.6	12.9	11.0
Personnel de service/Service workers	1.1		0.8	0.9	0.9	0.9
Autres CSP/Other categories	4.7		6.9	6.7	6.4	6.1
Sans profession/Not in work-force	9.0		2.8	2.7	2.8	3.0
N.R./No answer						8.3
Total (Français plus étrangers/French and non French)	100.0		100.0	100.0	100.0	100.0
Total	413.756		811.258	821.591	837.776	–

(1) L'origine sociale est déterminée par la profession du chef de famille/ by socio-economic status of head of household.

Sources:-Statistiques de l'enseignement (à partir de 1975-76, y compris la Réunion et les Antilles, ainsi que l'Institut des langues orientales et l'Institut d'études pédagogiques de Paris). (Since 1975-76, including la Réunion and les Antilles, as well as the Institut des langues orientales and l'Institut d'études pédagogiques de Paris).

- Etudes et documents "L'enseignement supérieur".
- Jarousse, Evolution du comportement des étudiants, CREDOC, Dec. 81, p. 8.

CHAPTER IV

SELECTION METHODS AND CRITERIA

INTRODUCTION

There is an observed trend in a growing number of OECD countries to limit the intake of certain university fields of study and to set greater restrictions on choice, often on entry, to secondary school leavers from academic streams. This has brought to the forefront issues relating to methods and criteria for selection among young people coming directly from secondary education. For a number of reasons, these issues have become highly sensitive politically. Firstly, there is, in most countries, an important problem of sheer numbers, as this group still represents the large majority of new entrants. Secondly, attempts to decrease prevailing inequalities in participation at the tertiary level inevitably imply the elimination of a number of long established privileges and acquired rights (droits acquis) which this group, as a whole, has traditionally enjoyed and to which naturally there are strong reactions. Moreover, in view of their social status, these students, and their parents, are in a privileged position to exert pressure on policy makers, resort to legal measures or articulate their claims through the mass media. Thirdly, difficulties are compounded by the fact that, practically everywhere, academic secondary streams continue to be organised as pre-university courses; this precludes any other options for these candidates who see their disappointment and frustration increased when thus rejected by the institutions or programmes on which they place their expectations and for which they are primarily trained. A vicious circle tends to develop as increased competition for entry into selective options renders even more difficult the task of reorganising and diversifying upper secondar academic streams: schools and teachers tend to stress the academi orientation of programmes in accordance with university requirements in order to increase the chances of their students in the competition for entry. This is also a means of preserving or increasing the prestige of schools and their staff whose status depends to a large extent on the number or proportion of their leavers who succeed in entering the more prestigious options of higher education (their "transfer potential").

Finally, it should be stressed that, whatever scenario is envisaged for the future, the question of selection methods and criteria will remain a central issue. For, even assuming that there will be a fall in demand for higher education and growing numbers of empty places in some institutions, certain sectors of higher education will continue to witness a strong and possibly increased, competition for entry. Indeed, as discussed in Chapter III, in recent years this has already been the case in a number of countries.

While many aspects of these problems are common to the majority of Member countries, solutions proposed or adopted are known to vary considerably from country to country and within countries over time, particularly in countries where restricted entry within universities is a relatively new phenomenon. Solutions are necessarily experimental and constantly revised in

the light of the results achieved; they must also be adapted to reforms in other related educational areas and to the changing socio-economic circumstances. Finally, past experience has shown that changes in political leadership may also exercise quite a strong influence on the type and direction of reform in this area.

It is useful at this point to review succinctly the various admission procedures currently operating in different Member countries. No attempt will be made to undertake a comprehensive and detailed examination of these schemes since this information is available in the contributions prepared by national authorities and experts(1) and can also be found in official documents of each country. Drawing on this material the purpose of this section is to analyse the more significant trends and the new ideas being developed, in particular in relation to selection procedures, and to refer to some of the problems and issues arising from the implementation of different schemes.

It would be useful at the outset to refer to a number of basic criteria which usually guide the choice of admission schemes and against which selection procedures are commonly assessed. A recent American report on selective admissions in higher education(2) identifies four bases, defined as follows:

> "Validity is often considered the most important basis for evaluators. It refers to the reasonableness of the measure as well as its effectiveness in differentiating among students who are and are not likely to succeed. Fairness refers especially to whether students have a reasonable opportunity to meet a particular admission standard and whether imposition of the standard has an adverse impact on some students that is unrelated to the demands of the educational programme. Feasibility refers to whether reliable measurement is a practical possibility, whether the cost of such assessment is within reason, and so on. Secondary effects refers to the positive or negative effect the use of an admission standard has upon the health of the educational institution, upon its feeder schools, or upon professions for which it serves as the principal or only mode of entry."

A fifth criterion which is related to, but not explicitly mentioned under fairness, could be added, namely that of social equity.

In analysing the advantages and drawbacks of the various selection procedures in terms of these criteria the discussion that follows is primarily concerned with their use among the traditional clientele of qualified school leavers whose proportion

(1) These contributions are listed in the Annex at the end of this report.

(2) Willingham et al, "The status of selective admissions" in Selective Admissions in Higher Education, Josey Bass, 1977.

out of the total number of new entrants may be declining more rapidly in some countries than others. Indeed, in some cases, the best known example being Sweden(1), a key feature of the recent reforms is that, in order to enhance diversity and avoid unfair competition for entry, candidates are divided into groups according to background characteristics (age, level and type of education), each subject to a different quota (i.e. competing among themselves). This means that in measuring the extent to which the fairness, or even more, the equity objective is being achieved, account must be taken of the results obtained within each group as well as those emerging from comparisons in participation rates between the various groups.

(a) Secondary School marks

In practically all Member countries access of secondary school leavers proceeding directly to higher education is primarily, if not exclusively, determined on the basis of secondary school records. For entry into open access institutions the successful completion of secondary school studies is usually the necessary and sufficient requirement to be met. When additional requirements are set these tend to be typically expressed in terms of school background (type of school, of streams, of subjects taken) and/or school performance (grades or marks, ranking order in class room). Similarly, measures of previous academic performance or of cognitive achievement, in particular school-marks, constitute in most countries the main basis for formal selection at entry. In this respect it should be noted that in spite of growing criticisms and the recognised drawbacks of using school marks for selection purposes, no country seriously envisages abolishing their use, at least not in the near future. Their maintenance is advocated by people with quite diverse ideological viewpoints, although of course very often with different degrees of enthusiasm, for different reasons, and with different schemes in mind.

Tradition and public confidence in "objective" indicators of school achievement and academic pressures undeniably account for much of the support for grades; other arguments contribute to strengthen their case. First and most important, studies conducted in many countries have shown a correlation between grade point average or marks obtained in final secondary school examinations and performance at the higher levels. And although in most cases this correlation is not sufficiently high to justify the exclusive use of grades, even on efficiency grounds, no other assessment method has been found to have a stronger predictive validity.

Another frequent claim is that school marks play a useful role in the sense that they both reflect and influence pupils' motivation for pursuing further studies. Thus, failure to give

(1) For details on the Swedish Scheme see: Admission Policies in Sweden - OECD, Paris 1976 (mimeo).

adequate recognition to reward high marks would have adverse effects on pupils' morale, performance and interest in academic achievement. Without going into the serious pedagogical implications of this type of argument, it is important to note that, whereas wide consensus exists as to advantages of assigning a greater role to motivation in the selection process, it is far from being generally accepted that marks should be used as an indicator of this dimension or should have even greater influence than is the case at present on pupils' attitudes and motivation vis-à-vis higher education studies.

No doubt the difficulties in developing other acceptable measures of cognitive achievement or of motivation explains to a large extent the dominant role of marks in the selection process. Concern for legitimacy and the need to account for the decisions taken, in particular in the case of rejected candidates, constitute a real and understandable barrier to change and diversity.

More recently, however, undue reliance on marks has been questioned on other than the typical meritocratic and egalitarian grounds which have usually dominated the debates on selection procedures. There is indeed a growing concern for the secondary effects, in particular on feeder institutions, i.e. secondary schools, that have resulted from assigning increased importance to indicators of secondary school performance. Indications of this, which have been observed for quite some time in Japan, are now found in most Member countries where selection among academically oriented school leavers has been introduced or reinforced. In Germany, for example, when in the early 1970s rapid growth in demand coincided with the adoption of a numerus clausus, secondary schools were strongly affected. The following observations on the German scene are known to apply as well to other national contexts(1):

The great importance of the average Abitur mark in the award procedure under the States Treaty has had extremely deleterious effects on the schools in general and on teacher-pupil relations and pupils' attitudes to one another in particular.

- Pupils feel compelled to concentrate almost exclusively on getting high marks and distinguishing themselves from their fellow pupils.

- Teachers are subject to heavy pressure to award higher marks. They cannot therefore be asked to set standards to ensure comparability of marks.

- After years of effort the schools achieved, in the agreement of the Länder of July 1972 about the reform of upper classes in secondary stage II, a basis for internal reform. They now find that the pressure for higher marks is undermining the pedagogical objectives of the new course system.

(1) Admission to Higher Education in Germany - OECD, Paris 1976 (mimeo).

Observation of these processes is only possible on a spot check basis, so that the problems can only be highlighted by a few remarks on teachers' marking and on pupil attitudes.

- An examination of the ZVS(1) tables on the frequency of marks in relation to applications from candidates of German matriculation standard reveals a clear upward movement of the higher marks. In the summer semester 1974 only 2 per cent had obtained certificates with an average mark of 1.7 or higher, whereas one year later the same qualifications had been reached by 3.3 per cent. There is a similar upgrading apparent from 2.5 upwards: in 1974 20 per cent of candidates scored this, or a higher mark, while in 1975 28 per cent did so. These are signs of inflation in the marking system, originating in the teachers' understandable inclination, given the numerus clausus, to give candidates the benefit of the doubt more often than before.

- Conversely, a recent poll of 241 pupils in the three senior classes of the Gymnasium showed them to be subject to growing stress on Abitur approaches. "Submissive behaviour" increases. The atmosphere of the classroom suffers: 60 per cent agreed that anxiety about obtaining a university place made everyone "look out for himself". One of the most disquieting features is that the performance motivation of the large group of middling and weaker candidates declined steeply with the approach of the examination, because they felt incapable, even with the utmost application, of meeting the high demands of "numerus clausus" subjects.

The importance attached to secondary school options and marks by selective higher education institutions has strong effects also on students' behaviour and choices both at secondary and post-secondary level. Individual choices tend to be made on the basis of strategies designed to increase chances or minimise risks rather than on genuine vocation, aptitudes or preferences.

When the type of stream chosen at the upper secondary level constitutes a key criterion in determining entry, as is the case in France, choices made at the age of 15 or 16 are not only crucial but often irreversible. In France, young students, especially those from middle class families, are under strong pressure to enroll in the mathematics stream at the upper secondary level since this is the only line of study which guarantees access to all options in higher education and is required by the majority of the selective institutions. This trend is reinforced by the fact that the growing number of university faculties or departments which introduce selection also favour the Bacculeureat in mathematics, not necessarily because it is relevant to future studies but because of its screening role in secondary education.

In countries such as Sweden and the Netherlands, where entry requirements are primarily determined on the basis of marks obtained in the course of secondary schooling or in the final

(1) Zentralstelle für die Vergabe von Studienplätzen.

matriculation examination without assigning great value to the type of subjects taken, different problems arise. In order to improve their chances in the competition for entry into universities, pupils favour choices in the humanities and social sciences, considered to grant them a stronger possibility of obtaining high marks. In Sweden such a trend has been considered as one of the explanatory factors in the lack of demand for scientific and technological university studies; in the Netherland it is claimed that it has fostered the need for remedial courses within the scientific faculties so as to bring up new entrants to the required level.

Marks can also play a significant role in the process of self-selection(1): pupils aware of the significance that is assigned to marks and accepting them as measures of predictive validity, tend to base decisions and future educational plans on the results they have obtained. The importance assigned to marks is likewise conducive to the phenomenon of "artificial demand" which is manifested in a variety of ways. For example, pupils with high marks or having succeeded in the noble subjects tend to choose restricted sectors, not necessarily because they are interested or have a vocation for the studies or professions to which they lead but because they perceive them - most rightly so - as a guarantee of higher educational standards, better employment prospects and higher financial rewards. In the majority of countries, the clearest example of this trend is found in the case of medical studies sought by a high proportion of young people talented in mathematics and other basic sciences (commonly used entry criteria) but not necessarily motivated or particularly qualified for the practice of the profession.

It is not possible to undertake, in the framework of this report, a thorough review of the vast number of problems posed by the exclusive use of indicators of school performance for selection among the pool of qualified school leavers. Some additional topics of concern will be mentioned when referring to the rationale behind the adoption of other methods and criteria. There is however one general point which merits special consideration, namely, that reforms concerning assessment and marking procedures at the secondary level and the role they are to be assigned by higher education institutions reflect a basic inherent tension between the needs and requirements of secondary education and those of higher education. This tension, scarcely noticeable when academic secondary streams practically had as their sole function the selection and preparation for higher education studies, has definitely increased in recent years; given the general lines of reform of secondary schools, it can be expected to become even more acute in the future. Indeed, the trend to broaden the aims and functions of upper secondary education and to develop polyvalent streams where the preparation for formal post-secondary studies is seens as an important but not unique function, may well contribute to strengthening the conflict of

(1) For a more detailed discussion see K. Härnkvist: Individual Demand for Education, OECD, Paris, 1978.

interests between the two levels. Groups primarily committed to these secondary school reforms are likely to advocate changes in curricula and assessment schemes considered to be ill-suited to the needs of higher education institutions, in particular the more selective ones. On the other hand, groups within the academic world will no doubt strive to maintain or develop indicators of performance at the secondary level which correspond to their own definition of standards and quality.

The debate in the mid 1970s in the United Kingdom on the reform of the "A" level courses, which are roughly equivalent to academic upper secondary streams and constitute the basic university entrance qualification, provides a good illustration of this growing tension between the requirements of schools and those of the universities. The proposal of the Schools Council to introduce instead the so-called "N" and "F" scheme(1), basically implying a broadening of the curriculum so to correspond better to the needs and aptitudes of a larger and more heterogeneous student body, has met with widespread opposition from the university world. Their main arguments do not relate so much to the intrinsic merits or drawbacks of such a scheme in the context of new developments in British secondary education, but obviously far more with whether the "N" and "F" curricula will enable school leavers to meet the standards set by the universities. Since university teachers considered that the proposals made did not meet this requirement and that in their view such a scheme would require the lengthening of most first degree programmes by one year - which in itself implies a corresponding increase in resources, difficult to accept under present economic conditions - it is not surprising that the scheme was finally not adopted. In Germany a similar debate took place in recent years with respect to the admission of graduates from comprehensive secondary schools (Gesamtschul-Absolventen).

The trend in many countries, including the United Kingdom, is towards a greater adaptation of higher education institutions to reforms at the lower levels. However, there are equally important countertrends, particularly in view of the growing concern for maintaining minimum tertiary level entry standards in order to prevent higher education institutions from becoming too heavily involved in compensatory or remedial education. The experience of the United States, with the open access system, is not likely to encourage Europeans to initiate it.

Thus, growing awareness of potential conflict of interests and objectives between the two levels reinforces the need, on the one hand, of reforming assessment procedures at the secondary level to take better account of these conflicting requirements, and on the other, for designing admission schemes which decrease the overriding role played by school marks.

(1) Schools Council: Examinations at 18+, Examinations Bulletin 38, Great Britain 1978.

This type of concern is clearly reflected in current discussions on the choice of more appropriate assessment and certification procedures at the secondary level. Among the central issues being discussed are: whether cumulative evaluation can or should replace final examinations; whether internal school assessment should replace external public examinations; whether there should be a clearer separation between assessment designed to certify completion of secondary studies and that measuring ability to pursue tertiary level studies; whether a cumulative type of assessment should be complemented by tests or other measures ensuring comparability of grading procedures and standards among schools, etc.

While in a number of countries the official policy is in favour of replacing final, often externally set, examinations by successive school assessments - generally advocated on pedagogical and social grounds - such a move is often resisted by parents and public opinion in general. The Australian report on Admission Policies(1), drawing on the rich experience resulting from the use of very different assessment schemes in the various states, illustrates quite clearly the conflicting viewpoints in this area: following the abolition of external examinations at the end of year 12 in Australian Capital Territory, Queensland and Western Australia and the introduction of moderated school assessment, the report points to a renewed emphasis in this country upon publicly accepted qualifications and a move in favour of reinforcing the place of the final year examination.

Policies aimed at limiting the weight assigned to school marks in admission or selection into higher education institutions are not necessarily of recent date. For quite some time, many countries in the OECD area have used other assessment methods, although also largely based on cognitive criteria or indicators of academic talent and scholastic ability. Entrance examinations and objective tests have been, and are, among the more commonly used procedures, intended either as means of reinforcing selection (especially in the case of countries with a large pool of qualifie candidates) or as tools designed to enhance the efficasity of selection schemes, i.e. improve their predictive validity.

(b) Entrance Examinations and Standardized Tests

In a number of Member countries, e.g. Greece, Japan, Portugal, Spain, Turkey, Yugoslavia, selection is based on the results of special entrance examinations used either exclusively (Portugal, Turkey) or more often in combination with school marks. In some cases, e.g. Spain, Portugal, these examinations can be taken only after a one year preparatory course; in others they are taken before or immediately after completion of secondary studies. Examinations may be organised by each single institution e.g. Yugoslavia, more commonly at national level or, as in Japan, through a combination of both.

(1) Access to Post-Secondary Education in Australia, OECD, Paris 1978 (mimeo).

At least in principle, entrance examinations have the advantage of marking more clearly the difference between the standards required for completion of secondary education and specific aptitudes and qualifications for different types of higher education studies. Thus, they could help relieve, at least partially, the selective role of secondary schools and also increase the chances of pupils who, for a variety of reasons, did not perform well at school but have the interest and potential to pursue tertiary education. In practice, entrance examinations do not seem to grant very often these additional opportunities. They are mostly used to assess past knowledge and cognitive achievement and thus tend to reinforce selection on the basis of the same criteria as school marks.

In the majority of countries where entrance examinations are currently used, they have become the subject of much controversy and considerable criticism. In Japan, where entrance examinations have for many years been the most crucial and controversial aspect of education, they have recently undergone considerable change; in Spain and Portugal their reorganisation is being seriously envisaged; in Greece the plan is to abolish them by 1981. Some of the problems they give rise to are similar to those posed by the use of school marks, others are inherent in the use of examinations for selection purposes, that is, of awarding too much importance to the results obtained on the basis of a single performance; still others are more specifically related to the different ways in which these examinations are organised in each country(1).

A major source of concern in quite a number of countries, e.g. Finland, Greece, Portugal, Japan, is the importance acquired by individual tutoring and/or private schools exclusively devoted to the preparation and coaching of students for these exams. There is above all the major social bias introduced by the fact that these are fee paying services or institutions, a bias which is further enhanced with the lengthening of the period between completion of secondary school studies and the time the examination is taken. Indeed, added to an increase in the direct costs of attendance are the indirect costs resulting from a prolonged non-active status (i.e. income foregone).

Family background tends to play an even greater role when competition for entry is particularly strong. It largely accounts for the differences in attitudes or strategies vis-à-vis "high risk" options and also determines the extent to which candidates who have been rejected once can or will persevere in seeking entry into the institutions of their choice.

The Greek report(2) identifies other undesirable effects resulting from the proliferation of private cramming schools, i.e. the "frontistiria". Quoting from a special survey, it notes

(1) More details on the organisation of these exams are provided in the reports quoted in the Annex at the end of this report.

(2) Politiques d'admission dans l'enseignement post-secondaire - OCDE, Paris 1978 (polycopié).

in the first place that in 1974, 84 per cent of those enrolling for the competitive entrance examination had attended one of these schools; this high participation rate also applicable for more recent years, represents a significant financial burden for many families and is viewed as adding considerably to the overall social costs of education. Secondly, candidates having attended these schools had only a slightly higher success rate in the competitive entrance examinations (44 per cent) than the minority who did not enroll (38 per cent). Thirdly, evidence of a widening gap in performance in the entrance examinations shows that these schools tend to favour the best pupils, (i.e. those with higher secondary school marks) rather than increasing the chances of the weaker ones. It is further claimed that the presence of these schools has contributed to highlighting the flaws of the public education system and undermining confidence in the selection process. Refer to recent reforms and the Review.

In Japan, cramming schools pose very similar problems; but in this country the variety of issues raised in relation to the university entrance examinations can only be understood with reference to the central role these examinations have in Japanese society. In the words of an observer "there can be no other industrialised country in the world where the success in life of an individual hinges so dramatically on the results of such a short performance"(1). Given the formidable tensions and pressures surrounding the "examination hell", it is obvious that the variety of social problems posed, not least those pertaining to the secondary effects on the lower levels of education, are felt with particular acuteness. The fierce competition in Japan is due not so much to a shortage in the overall capacity of the higher education system, but far more to its hierarchical nature and the overriding dominance of a few elite institutions. It is very common that secondary school leavers, unable to meet the standards of the institution of their choice, make repeated attempts to enter in the following years. The presence of these "ronin" students who in 1976 represented 24 per cent of the total number of applicants to universities and junior colleges(2) obviously accentuates the competition, adding further tensions to the admission process.

The observations made in the Japanese report show how, in a strong competitive situation, entrance examinations can have similar, or even more pronounced, feedback effects on secondary schools than school marks. With reference to the scholastic ability tests as a main selection procedure, it is stated that:

> "questions of a nature too advanced to be answered by those students who have done normal upper secondary studies or odd questions deviating from the aim of the entrants' selection test have come to be set.

(1) U. Teichler, "Some Aspects of Higher Education in Japan" in KBS Bulletin on Japanese Culture, June, July 1972, p. 9.

(2) See Admission to Higher Education in Japan - OECD, Paris 1977 (mimeo).

In these circumstances, upper secondary school students have come to spend much more time and energy on preparatory study for university entrance examinations than on ordinary study in upper secondary schools, and upper secondary school education has come to adapt itself to such study practices. Moreover, the number of students attending special private cramming schools preparing them for university entrance examinations is also growing(1)."

After long debates and research work a new selection scheme begain to operate in Japan in 1979. So far the so-called Joint Achievement Test is applied only in national and public universities, thus excluding the private sector and all national and public junior colleges. The main lines of this test taken in two stages has been described as follows:

"The applicants for national and public universities are required to undergo a joint achievement test held as the first stage examination around the end of December simultaneously throughout the nation. This test, designed to assess the applicants' level of general and basic scholastic attainments in their upper secondary school period, is imposed in five subject areas - the national language, social studies, mathematics, science and a foreign language - within the academic scope defined as compulsory under the curriculum of upper secondary schools. The test is based on the multiple choice method on mark-answer sheets and answers are read by optical mark-readers and processed by computers. An estimated 400,000 will sit this test.

Applicants then undergo the second stage examination, held around early March, by each university applied for. This test, designed to assess the applicants' ability and aptitude for the chosen undergraduate course, is given in such forms as the written scholastic ability test, practical skill test, interview and small thesis-type test. Since all national universities and most public universities are expected to hold this second stage examination on the same date, each applicant will be able to take an examination in only the one national or public university he prefers most, unlike in previous years.

Final judgement about whether each applicant should be rated as successful or not is rendered comprehensively by each university after examining his results in the joint achievement test and the separate second stage test as well as his credential and other relevant data. The result of the joint achievement test is not therefore designed to function as a final factor for determining whether any particular applicant should be rated as successful or not, but is delivered to each university concerned for use as one of the factors to be considered when coming to a decision on success or failure in the examination as a whole.

(1) Ibid. p. 13 and 14.

In addition, even under this new selection formula, each university is allowed to keep the previous admission-on-recommendation formula; that is the formula of admitting some applicants recommended by the principals of their upper secondary schools based on their credentials, while exempting them from the scholastic ability tes[illegible]1)."

In relation to past matices, this scheme aims at assigning more weight to performance at the upper secondary level, and above all tries to prevent candidates from taking several entrance examinations at a time.

Within the OECD area it is mainly in the United States and in Japan that special standardized objective tests have been developed for admission and selection among qualified school leavers. Although in the United States school marks are considered to be the more valid criterion for recruitment, the majority of colleges and universities use them in combination with the results of national standardized tests set up and administered by a central non-governmental agency, such as the Educational Testing Service (ETS) and the American College Test (ACT). The well-known SAT (Scholastic Aptitude Test), taken by school leavers seeking entry into higher education, enables institutions to compare the performance of candidates coming from a highly decentralised and diversified school network. In addition, much of their legitimacy is based on the fact that, when used together with school marks, tests have been shown to improve the predictive validity of the selection process; and at present they are often viewed as a safeguard against the arbitrariness of the selection process. It should be stressed, however, that in recent years, the uses of tests for admission or assessment purposes in higher education has been under strong attack in the United States.

While in the United States, and also to some extent in Japan, tests have for a long time played a major role in education as well as in other social sectors; in the majority of European countries more confidence has been placed on essay-type examinations more closely linked to the teaching process. In Europe, prevailing attitudes vis-à-vis objective aptitude tests, in particular when used for individual assessment and selection purposes, have in general ranged from scepticism to outright rejection. This marked contrast in attitudes cannot be explained merely by technical or organisational factors and no doubt has to be seen in connection with the different psychological and learning theories which have prevailed in the two continents.

In practice, the differences between examinations and standardized ability or aptitude tests may be less marked than is sometimes assumed and there are some signs of a narrowing of the traditional gap in the approach to assessment. In the United States, in view of the present concern over standards of

(1) Ibid. pp. 18-19.

high school leavers, particularly in the field of written and oral communication, there is growing interest in assignments tools - whether they are called tests or examinations - which include written essays, analysis of texts or other assessments typically corresponding to the more "discursive" or "holistic" approach of traditional examinations. On the other hand, European countries which are beginning to face problems of selection among a considerably enlarged pool of qualified candidates and are developing centralised admission systems, also begin to share with the United States the need for easily administered national norm-referenced assessment procedures; this is all the more so in cases where secondary school final examinations have ceased to guarantee access or have ceased to exist altogether. Up till now efforts have been mainly focussed on achieving maximum comparability between school marks, whether these are based on final examinations or cumulative evaluation. Sometimes this may imply introducing assessment techniques typically associated with standardized tests, e.g. multiple choice, closed questions, etc., which enable better control of regional, schools and individual teacher variations in assessment. More often, perhaps, the policy has been to devise systems whereby the secondary school marks can be adjusted to national norms.

Growing awareness of the advantages of using complementary or, in the long run, alternative selection procedures, rather than endlessly refining and adjusting school marks to higher education requirements, has induced some of the OECD countries, e.g. Australia, Sweden and Germany, to assign considerable resources to the development of tests specifically designed for admission purposes.

In Australia developmental work started in 1968, financed by the Commonwealth Government. The programme, initially designated the Tertiary Entrance Examination Project (TEEP), was aimed "at determining whether such tests could improve tertiary entrance selection and reduce wastage in tertiary institutions when used in conjunction with matriculation examination results". In 1970 the Australian Scholastic Aptitude Test (ASAT) was developed from the TEEP tests and "was designed to measure general verbal, numerical and related skills and to be independent of knowledge gained by studying specific subjects. Studies have shown that test results were considerably less successful than traditional public examinations in predicting tertiary performance, although for certain academic courses it has proved possible to achieve superior prediction using a combination of TEEP or ASAT results and public examination subjects(1). The test ASAT is now being used in the Australian Capital Territory, with student scores being used to scale teacher assessed scores to produce the tertiary entrance score.

(1) Access to Post Secondary Education in Australia, OECD, Paris 1978 (mimeo) p. 36.

In the other two countries, it is claimed that developmental work in this area has been slow and the results not always satisfactory. In Sweden, the original idea was to develop an aptitude test as a means of selection among all applicants, even if taken only on a voluntary basis. However, after heated public debates, the Parliamentary decision of 1975 stated that the aptitude tests would not be applied to qualified school leavers and be taken only by candidates without the traditional qualifications and remain voluntary. It is likely that a substantial proportion of those who apply on the basis of work experience (25/4 schemes) will take this test since it grants the opportunity of gaining additional credits.

In Germany, the Federal Government University Enabling Act of 1976 makes provision in the case of special selection "for an assessment procedure designed to give candidates an opportunity of showing abilities and knowledge likely to be of importance to success in the course but not revealed by previous school leaving examinations"(1).

Of special interest is the aim formulated in Germany to develop tests which improve the predictive validity of the scheme but which do not necessarily show a high correlation with school marks, since the intention is precisely to measure aptitudes and abilities relevant to future studies but not revealed by the Abitur results.

Since 1975, the Federal Government and Länder authorities have been sponsoring the development of models of university entrance tests for a number of fields, e.g. medicine, dentistry, sciences, psychology, technology, law, economics. Of great significance in accelerating work in this area was the fact that public opinion polls and surveys among students and teachers revealed that the use of tests in combination with marks was regarded as one of the fairest solutions to the problem of selection(2). More recently, the enthusiasm seems to have declined, partly because of the prevailing scepticism vis-à-vis some of the tests which were developed. The latest decision has been to start introducing tests in 1980/81 for a 3-year trial period and only in the fields of Medicine, Veterinary Studies and Dentistry. Furthermore, only a sample of candidates will be expected to take them.

It is clear that far more time and experimentation will be needed before the future of university entrance tests in Germany will be more permanently settled. Some groups are likely to subscribe to the opinion of a well-informed German expert who

(1) Admission to Higher Education in Germany, op. cit., p. 37.

(2) Fifty six per cent of the public favoured this scheme while 80 per cent rejected a lottery system. In 1975, 44 per cent of teachers and 46 per cent of students opted for tests and Abitur marks while 5 per cent favoured the lottery.

states that in the long term "even if the current bulk of candidates no longer has to be accommodated, it will be thought expedient to govern admission to a given course by a special procedure for diagnosing aptitude"; it adds: "it remains likely that in the longer term, requirements which are important for academic studies and future careers will not be revealed in Abitur or degree marks, and that tests specially tailored to the needs of university departments will be set for university entrance"(1).

Other groups, less convinced of the merits of testing or more conscious of the risk that schools may lose their traditional academic orientation, will most likely continue to exert pressure for secondary school curricula and examinations to be better adapted for university admission purposes. There are, indeed, proposals to introduce national achievement tests at different stages in the Gymnasium. It should be underlined, however, that the main reason for developing tests in Germany was not to replace marks but to complement them so as to give added legitimacy to the selection process. A crucial consideration in this context was the decision of the Federal Court that whenever selection among academic secondary school leavers (Abiturienten) was necessary, the procedures used had to measure other criteria than those taken into account by the Abitur examination.

At present, the key question is not necessarily one of school marks versus tests, but rather the extent to which complementary procedures should take additional account of academic talent or ability, or whether more importance should be assigned to non-cognitive criteria as a way of decreasing bias resulting from an exclusively meritocratic based scheme. Thus, in many OECD countries various other methods are being proposed as means of mitigating the problems posed by too narrowly based selection schemes.

In discussing these alternative methods, it is perhaps important to distinguish between selection procedures which can be roughly characterised as having a positive orientation and those which imply a more "resigned" or negative approach. In the case of the former there is an attempt to introduce, identify or assess other criteria considered to be relevant to the objectives pursued, e.g. motivation, personal characteristics of candidates, social background, etc.; interviews, measures of positive discrimination, recognition of work experience are examples of this type of positive oriented or affirmative action schemes. The second category, although often pursuing similar objectives, focuses exclusively or primarily on decreasing the weight of the traditional indicators of merit or talent but without otherwise attempting to pursue these objectives in a more explicit way. Lottery systems, waiting periods are more closely associated with this type of approach.

(1) Admission to Higher Education in Germany, op. cit., p. 46.

Although the adoption of non-cognitive criteria is most commonly associated with egalitarian objectives, a number of other arguments, often based on efficiency considerations, are also being advanced in support of more diverse entry or selection criteria, such as how to better identify motivation or vocation for specific studies; enrich the educational experience through greater diversity of the student body; assign greater value to personal characteristics relevant to the exercise of certain professions; contribute to a more varied membership within professions known to have specialisations requiring different profiles and types of competencies.

A special survey undertaken by the OECD on new trends in the selection for entry into the teaching profession(1) provides useful information for a number of Member countries on the attempts to adapt selection procedures to the changing roles and tasks of this profession and analyses in more detail the problems encountered. Special reference is made to the results of this survey as a means of illustrating some of the issues being discussed.

(c) Interviews

In quite a number of OECD countries, especially in those with an Anglo-Saxon tradition and a lengthy experience with selective entry, many institutions have used for a long time interviews (often combined with letters of reference and school reports) for admission purposes. As mentioned in a previous OECD report(2):

"The practice by top-ranking institutions of investing time and resources in these procedures indicates the importance they attach to certain individual characteristics not necessarily related to school marks. In fact, many of these institutions have a long tradition of identifying different forms of talent and special personality traits, such as students who excel in sports, arts and other extra-curricula activities, or who are involved in certain types of work or life experiences considered to be pertinent to their future studies and to the life of the college. The use of a variety of not always clearly defined criteria has also facilitated certain discriminatory practices, e.g. favouring the entry of sons of alumni and other candidates considered to be an asset to the institutions for economic or social reasons rather than for their specific talents and abilities."

The main problem posed by the generalised use of interviews to determine entry - and certainly not at all a negligible one in mass higher education systems - is that of the time and resources which this type of assessment procedure requires. A

(1) Selection for entry into the teaching profession, OECD, Paris 1979 (mimeo).

(2) Selection and Certification in Education and Employment, OECD, Paris 1977.

second type of major obstacle relates to their informal and subjective nature, and on difficulties of comparing candidates, of accounting for decisions taken, dangers that result be more linked to the personality and experience of the interviewer than that of the candidates. However, even in countries where there is no established tradition of informal selection techniques there is a growing interest in interviews, often seen as a more acceptable solution than the use of objective tests.

Proposals for using interviews on a wider basis are more frequent in fields of study where motivational aspects and certain personal characteristics of students are considered to be highly relevant for training and subsequent practice of the profession. This is especially the case with certain service professions, e.g. health professions, teachers, social assistants, etc. Results of the OECD survey on the teaching profession show that where personal characteristics and aptitude for teaching are taken into account, there is a marked preference for interviews over testing. Special aptitude tests have been tried but are now seldom used and in some countries (e.g. Sweden) they have been recently abandoned. However, the conclusions also point out that given the difficulties of specifying and identifying the relevant personal characteristics, interviews tend to have a negative screening role rather than a positive one, that is, they lead primarily to the elimination of candidates considered to be clearly ill-suited for teaching. This example may be indicative of a more general trend, namely that although interviewing techniques have little chance of being developed on a mass scale, they are likely to gain in importance as a supplementary criteria in the case of borderline candidates or where school marks or other indicators have failed to provide a clear assessment.

The future of interviews is also linked to the progress made in developing special aptitude tests which would enable discrimination among a pool of applicants with very similar formal qualifications as well as to policies concerning the type of information schools are to provide to higher education institutions. Where letters of recommendation and/or detailed school records exist, appraisal of dossiers may be considered as providing sufficient evidence. However, in countries where serious consideration is being given to the protection of individuals' files, or where there is an explicit policy not to transmit subjective information with regard to behaviour, attitudes and motivation, especially if these are likely to handicap pupils in the competition for entry, a stronger urgency for developing interviewing techniques suited to the purposes of different institutions and programmes is likely to arise. Whether interviews will fulfil these requirements and gain legitimacy as a selection instrument will of course largely depend on the knowledge and acceptance of the terms of reference which they use and, perhaps even more than with other procedures, on the professional quality of those responsible for the assessment.

(d) Measures of preferential treatment

At least for analytical purposes it is important to distinguish between special schemes designed to facilitate the access of groups which do not meet the formal entry requirements (see Chapter V) and the use of preferential treatment measures for selection among the pool of qualified applicants. It is the latter type of measure, discussed in the present section, which is now posing very sensitive social and legal issues.

In the first place, discrimination on the basis of socio-demographic characteristics tends to be more visible and difficult to accept when applied to a group of candidates who meet the minimum requirements and are expected to compete primarily on the basis of merit. Secondly, while special schemes for non-qualified candidates are more commonly found in relatively free access institutions or programmes, preferential treatment measures among qualified applicants are mainly used as selection tools, often in highly competitive institutions. They are therefore far more carefully scrutinised, more vulnerable to criticisms and to legal action on the part of those who may consider themselves as having been unfairly rejected.

Even if one of the major underlying objectives pursued through measures of preferential treatment is that of increasing the participation of qualified candidates from disadvantaged groups, indicators of socio-economic status are very seldom considered as relevant criteria for selection purposes(1). Some countries or institutions have small quotas or specific regulations in favour of special hardship cases, but unlike some of the Eastern European countries no global policies exist to take explicitly into account the social origin of candidates. It is mainly through student-aid schemes that family background and income are taken into consideration, the purpose being to dissociate these variables from the actual decisions concerning access or selection; and at the same time provide incentives for demand and ensure that once candidates have been granted admission they are not prevented from enrolling or pursuing their studies because of financial constraints(2).

A number of OECD countries attempt to cope with the problem of the socially disadvantaged at the level of access in an indirect way, for example, through preferential treatment measures for specific minority groups and more recently for immigrants. With rising overall levels of educational attainment, problems related to these groups which were mostly restricted to the lower levels of education have become a topic of growing concern at the post-secondary level. Australia, Germany and Sweden are among the countries which explicitly mention the

(1) In some universities such as Cosenza in Italy, Paris X, Dauphine in France, income or SES is being taken into consideration.

(2) For a more detailed discussion on the relationship between the extent of selectivity in admissions and the degree of selectivity in student aid schemes see Chapter VI.

rising political commitment to cater for the specific needs of these groups; but no doubt it is in the United States where this problem has in recent years become a major social and educational issue debated not only within academic and educational policy circles but also within the society as a whole. The proceedings and final decision of the Supreme Court of the United States on the Bakke versus University of California case revealed a wide range of sensitive issues posed by the implementation of "affirmative action" schemes and the lack of consensus in respect both to the objectives pursued and to the means through which these can be attained. Indeed, many of the groups which agreed with the University's decision of admitting black students with lower entry scores than white candidates who had been rejected, were highly critical of the method which was applied, namely the setting of a predetermined strict numerical quota for black applicants. The trend in the United States seems now to be in favour of less formalised measures applied on an individual rather than on a group basis but the debate on this issue is far from being closed. The rather inconclusive decision by the Supreme Court has given rise to a variety of interpretations as to the actual legal boundaries within which institutions can manoeuvre; and in view of the complexity of the legal and social problems involved, affirmative action measures have been going through a critical period. However, it is still too early to know whether, as many observers in the United States fear, universities and in particular the highly competitive professional schools, e.g. medicine and law, will back away from their commitment to minority groups. Although the meritocratic/equity dilemma is central to all debates on preferential treatment measures, the Bakke case has brought to the fore the key question of to what extent policies designed to favour certain target groups can result in greater social injustice vis-à-vis other equally less privilege sectors of the population. The claim in the United States is that the concern for black students has led to other minority groups, e.g. Spanish speaking groups, being ignored as well as various categories within the majority population, in particular white people from lower socio-economic backgrounds and women.

As mentioned in the previous chapter, another indirect way in which countries have been trying to cope with the problem of achieving a more balanced social mix of the student body has been through a broader definition of the formal qualifications required for entry. A relatively recent trend relevant to this discussion is the policy of setting goals or quotas for leavers of upper secondary streams who in the past were scarcely, if at all, represented in the more prestigious and selective higher education institutions. Positive discrimination in favour of candidates from technical and vocational oriented streams, often accompanied by special training schemes adapted to these groups, have been introduced or are planned in a number of highly selective institutions, e.g. in France (Grandes Ecoles), Sweden, Finland, Denmark, etc.(1).

(1) For more details see Chapter V.

Whereas practically all Member countries attempt to cope with the social equity issue through indirect measures - that is focussing on changes in supply (e.g. creation of new programmes, geographical dispersion or influencing demand at the secondary level or through student aid schemes) affirmative action measures at the level of access which take direct account of the sex and age of candidates are somewhat more frequent and better accepted.

Even if the general and quasi universal increase in the participation of women in tertiary education responds primarily to global educational and social trends, in quite a number of Member countries explicit measures are being taken so as to redress the balance in certain programmes with either a predominantly female or male population. Responses to the OECD survey on Admission Policies in Teacher Training Institutions show, for example, that Finland, New Zealand and Sweden have quotas or less formal procedures as means of increasing the proportion of male students. Similarly, it is claimed that highly selective or prestigious institutions, in particular those training for the medical, engineering and management professions with a dominant male recruitment, have over the past years been favouring more or less overtly and with different degrees of commitment applications from women candidates. The success of these measures is difficult to assess; at least up to quite recently it could only be marginal since the bias in the sex distribution of applicants is to a large extent - although by no means totally - out of the control of higher education institutions. Furthermore, where positive discrimination is applied to qualified school leavers - whether in favour of minority groups, men or women an essential condition in practically all cases is that applicants meet the minimum requirements set by selective institutions.

Age

Age has always been a key criterion in determining access to post-secondary education. The strong bias in recruitment, typically in favour of young school leavers, is the result of the traditional "front end" or sequential pattern of education as well as of the established practice of student-aid schemes and of many institutions - in particular the highly selective ones or those training for the professions - to set eligibility criteria designed to exclude candidates above a certain age limit.

Although age restrictions of this type continue to be very frequent, data on the age composition of new entrants (table 13)(1) show that for some countries the 1970s witnessed a significant change, a change favoured by recent policies ranging from a more favourable response to demands of mature candidates to explicit positive discrimination and outreach activities in favour of different groups of adults (see Chapter V).

(1) See Annex to Chapter I.

Of special interest in the context of this discussion are the admission/selection measures aimed at encouraging, or at accepting far more than in the past, qualified school leavers who take take time off between completion of secondary school and entry into higher education. Of course, deferred entry has become a more established pattern in countries where either national policies have favoured such practice (e.g. some of the Scandinavian countries) or where universities or selective institutions enjoying a certain degree of autonomy and having more flexible selection procedures have taken a positive stance, e.g. Australia, the United Kingdom, Canada, the United States. Selection procedures in favour of older qualified candidates range from greater responsiveness to their demands to more explicit affirmative action, e.g. the practice of ensuring a place to school leavers who apply one or two years before they actually enter the institution; the award of additional credits for work or learning experience gained outside formal education, etc.

Among the Member countries with decentralised systems, the United States is the one to have moved furthest in this direction and which has no doubt the largest variety of schemes. The practice in this country of assessing relevant competencies and skills acquired outside formal education and also of recognising them as part of the first degree programme has also been an incentive towards postponing entry.

Among the countries where admission and selection procedures are set at the central level, Sweden has been the first to introduce a special quota for qualified leavers with work experience. Older candidates have indeed benefited from this scheme during the first years of implementation.

However, as shown in the first evaluations of this scheme(1) one of the problems which has come up is the fact that a substantial proportion of those admitted on the basis of educational qualifications plus work experience came from relatively privileged groups; many had pursued other post secondary studies and some had already earned other academic qualifications.

It is difficult to anticipate at this stage to what extent current and foreseen problems of youth unemployment will affect both demand patterns and institutional practices. The Swedish experience has already revealed some of the unforeseen consequences of favouring older qualified candidates, giving rise to a situation which is likely to give rise to serious tensions if such a policy leads to the rejection of a substantial number of young school leavers, often from less privileged groups, who may find it increasingly difficult to gain the work experience required by selective institutions.

(1) K. Abrahamsson, L. Kim and K. Rubenson: The Value of Work Experience in Higher Education, Institute of Education, Stockholm, 1980.

As discussed in greater detail in the following two chapters, the extent to which a recurrent pattern of attendance will become a more established practice will also be heavily dependent on policies vis-à-vis the financial support of older students. Special ingenuity and foresight will be needed in order to avoid the risk that the more privileged categories of adults, both in terms of level of educational attainment and social status, become the only or primary beneficiaries of preferential treatment measures, thus resulting in a more socially biased recruitment than in the past.

(e) Waiting Periods

In the OECD area it is mainly in Germany where waiting time has been systematically used in recent years as a main criterion for selection into higher education. In the early 1970s, 30 to 40 per cent of the places made available in subjects with numerus clausus have been allocated on the basis of this seniority principle(1). One of the main reasons for setting up this type of scheme has been that the courts ruled as unconstitutional a situation in which secondary school leavers completing the Abitur with low marks had no chance of entering restricted branches of study.

The extraordinary growth in demand for some of these closed programmes led to such long waiting lists that waiting periods extended easily up to five or six years. Under these circumstances the current practice among these candidates has been to register in other open access courses without any intention of completing their second choice studies. According to estimates for the winter semester of 1975/76 there were 50,000 "parked" students enrolled just to mark time. The educational, social and economic consequences of this distortion in demand led the German authorities to modify the selection rules. The Federal Frame Law of Higher Education (1976) retained the principle of waiting time for selection purposes but to be applied in a far more limited number of cases, a condition made easier by the radical change of policy in 1977 which led to a strong reduction in the number of subjects with numerus clausus. One major modification has been introduced, namely that time spent by students in other tertiary courses is no longer considered as part of the waiting period. The proposal of taking into account only waiting time spent at work was debated but this principle was not retained.

(f) Drawing Lots

Although lottery as a selection procedure in higher education made the headlines in the international field some years ago, its use by individual institutions, in particular as a final screening device among tied candidates, is not so recent

(1) Admission to Higher Education in Germany, op. cit.

or infrequent. In Denmark and Norway the claim is that l[illegible] is used less frequently than in the past; in other countr[illegible] continues to be used sporadically by individual universi[illegible] departments. Still in others, where concern for se[illegible]s of more recent date, the debate is only now beginning [illegible] shape. Only in the Netherlands and in Germany has a more generalised use of lottery been considered at the highest political level.

In the Netherlands, the Parliament approved in 1974 the introduction on a temporary basis of a lottery system to be used in combination with school leaving grades as means of selecting candidates for entry into restricted faculties. This type of weighted lottery, which is currently still in operation in a small number of programmes, is organised in such a way that, for example, in 1976-77 applicants to medical faculties who had an average grade of 8.5 or above (out of a total maximum of 10) were granted automatic entry, whereas among all others who took part in the lottery those with an average grade between 8.0 and 8.5 were given three times more chances of being selected than those with a 6.5 average grade. From its inception the weighted lottery in Holland has been the target of strong criticisms mainly because it represented a compromise solution which left unsatisfied those advocating a uniform lottery for all candidates - a position adopted by the Ministry of Education in 1975 - and those in favour of a more meritocratic selection scheme, a position now favoured by the present government which has made public its intentions to revert to selection on the basis of formal indicators of ability.

The idea of using a weighted lottery system on a more systematic basis has also been discussed at length by the German Federal and Länder authorities who viewed this procedure as another way of meeting the conditions set by the courts that all qualified candidates should be given a chance to enter numerus clausus courses. The Framework Act for Higher Education of 1976 made provision for its use not only in deciding between applicants of equal qualifications according to the "General Selection Procedure" but also as an active element in the new "Special Selection Procedure" envisaged for admission into courses in which demand most markedly outweighs supply.

It should be noted that it is mainly in countries which stress the objective and formal methods of assessment where a lottery system seems to have greater chances of being adopted. When confidence in the validity of school marks or tests decreases and other informal methods such as interviews or preferential treatment measures are not considered feasible or desirable, the idea of having a formal and explicit screening technique such as the lottery gains ground; all the more so when it can be defended on equity grounds and as means of stopping the escalation in the entry qualifications of highly selective institutions. However, it is quite obvious that proposals which imply the explicit use of luck as a criterion for determining entry into a setting which

has always placed the highest value on talent and ability are considered by a large majority of people as unacceptable; if not as an outright sacrilege. Even among those who openly recognize the arbitrariness and the interference of luck in most selection procedures, there are many who reject the idea of a lottery, considering it to be a measure of despair or proof of failure and consequently detrimental to the internal ethos and external image of higher education institutions.

CHAPTER V

NEW GROUPS IN HIGHER EDUCATION

I. INTRODUCTION

In the last decade, there has been a considerable growth of interest in OECD Member countries in what have been described variously as "new groups", "non-traditional students" or a "new clientele" in higher education. The purpose of this chapter is to review such developments, drawing where possible and appropriate on examples from Member countries, and to discuss both the short-term problems and longer-term issues which arise from them. In so doing, the chapter addresses four main questions, which dictate the four main sections of the paper:

- who are the new groups?
- where are they studying?
- what special admissions policies are involved?
- what long-term issues do the new groups raise?

It will not be possible to answer these questions without some reference to traditional groups of students. "New" and "non-traditional" are relative terms: relative to the traditional intake of students. What is traditional varies from country to country, and reflects among other things the overall size of that country's higher education system, as measured by the percentage of the relevant age group admitted to higher education, percentage which varied in 1975/6 from under 15 per cent to over 40 per cent(1). Thus women might be considered a new group in some countries, a well-established though minority group in many others and seem on the verge of becoming a traditional group in a few others.

There is another aspect to the relationships between new and traditional students, which is that in some countries the increased interest in new groups reflects a declining intake of traditional students, a decline due to combinations of demography and demand. In such cases, new groups might be more accurately described as alternative groups.

Before embarking on the analysis of new groups, a note of statistical caution should be entered, for two reasons. First, the figures on new groups often do not go back very far, reflecting the recent growth of interest in these categories, hence it can be difficult to obtain an adequate time-series, and therefore to establish trends. Secondly, the statistics on certain types of new groups, notably part-timers, are not always reliable, since such students sometimes live, perhaps deliverately, on the margins of the system, maintaining a shadowy existence both in educational and employment terms.

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(1) Development of Post-Secondary Education in OECD Countries since 1965, OECD, Paris, 1979 (mimeo), Table T.9.

II. WHO ARE THE NEW GROUPS?

As noted in one of the Conference discussion notes, "the terms 'adults', 'new groups' or 'non-traditional students' encompass a large vague and diverse universe; a more precise categorisation is needed to facilitate policy discussion"(1). The document goes on to identify four groups:

- young entrants from upper secondary vocational streams mainly in European countries;
- unqualified mature entrants;
- young qualified entrants, who nevertheless choose to combine work and study in various ways i.e. alternating work and study, combining the two, or postponing entry until after a period of employment;
- qualified or partly qualified adults who wish to pursue post-secondary education a few, or many years after completing their secondary education.

In addition to these four groups, the literature on new groups (as they shall henceforth be called) frequently refers to other categories of students: women; students of low socio-economic status; ethnic minority students; students who are updating professional knowledge and skills; students studying at a distance. The difficulties of arriving at a more precise categorisation are evident and reflect, as noted already, the relativity of the term and its variability from country to country In these circumstances, it may be helpful to classify new groups of students in terms of a typology of age and qualifications, as follows:

QUALIFICATIONS

AGE	QUALIFIED	UNQUALIFIED
YOUNG	A	B
OLDER	C	D

(1) "Overview of issues and notes for discussion" Theme 1: Access to Higher Education, OECD, Paris, 1981.

The traditional intake of higher education - the young qualified school-leavers - is represented by category (A). However, some new groups also come under category (A) since while women, students of low SES, ethnic and regional minorities may all be young and qualified, they do not belong to the traditional intake of male, white, middle-class students. Category (B) represents students who though young are not qualified in the usual way, i.e. do not come from the academic streams of upper-secondary schools; hence category (B) covers students who enter higher education from vocational and technical streams in secondary education; sometimes called "second route" students. This category applies mainly to European countries with streamed secondary systems. Category (C) covers students who, though qualified, either spin out their attendance over a longer period than normal, through alternating or combining work and study, or postpone it until adult life, for reasons of employment or family. Category (D) represents adult students who are not qualified in the normal way, and thus enter under special admissions policies. The minimum age for such policies is usually three years "clear" of secondary education, but it may be more. This four-part categorisation is not wholly satisfactory, but it is hoped that the analysis in the next section of the paper will complement it, giving an overall set of categories which is clear enough to be useful, and yet accurately reflects the complexities of the situation across a wider range of countries. Each of the above categories will be analysed drawing on data and examples from a number of countries.

It was noted that category (A) represents the traditional intake of higher education - the young, qualified student - but also includes groups which have traditionally been under-represented within this intake. One of the most obvious of such groups is women. Table 1 gives the percentages of female enrolments in higher education for both university and non-university sectors between 1965 and 1975. With the exception of Finland where females already account for over half the total enrolments, the percentage of women enrolling in higher education increased in every country for which figures are available. In 1975, the proportion of women was higher in the non-university sector than the university sector in all but three countries: Germany, Ireland, and Portugal. Where more recent figures are available, they tend to confirm the rising trend in female enrolments. In Canada women accounted for 48.3 per cent of all full-time and part-time university enrolments in 1978/9, and, interestingly, 34.4 per cent of post-graduate students, as against only 18 per cent in 1965/6(1). In the United States, the female percentage for the whole of higher education had risen to 49.8 per cent in 1978/9(2). In France, female enrolments in universities (including IUTs) had reached 48 per cent in 1977/78(3). In Sweden, the

(1) Stats. Canada, Universities: Enrolments and Degrees, 1978, Cat.81-204.
(2) Digest of Educational Statistics, 1979. (Provisional figures)
(3) Etudes et Documents, L'Enseignement supérieur en France, Etude statistique et Evolution de 59/60-77/78.

TABLE 1

Percentage of Female Enrolments in Higher Education

	University			Non-university			Total		
	1965	1970	1975	1965	1970	1975	1965	1970	1975
Australia	...	29.7	37.3	...	64.0	54.0	...	39.6	44.6
Austria	23.9	25.0	32.1*	33.3	57.1	60.0*	24.2	28.9	35.6
Belgium	24.0	28.6	33.3	44.9	49.5	50.5	32.7	38.2	41.5
Canada	31.5	35.9	38.4**	59.5	49.9	49.9**	38.4	39.2	41.3**
Denmark	30.2	31.7	28.5**	41.0	49.6	65.0**	34.3	37.8	41.1**
Finland	49.3	47.6	48.8	55.3	51.7	55.7	50.9	48.5	50.3
France	41.4	...	...	35.1	...	42.4*	40.3	...	...
Germany	22.5	30.6	35.8	6.5	12.8	24.7	18.8	26.1	33.7
Greece	30.4	31.0	34.9**	28.7	33.1	35.6	30.2	31.3	35.0**
Iceland	...	...	...	...	...	...	...	...	...
Ireland	28.1	33.5	41.8	34.0	85.6	32.8	29.5	34.0	38.6
Italy	32.5	37.0	38.4**	46.0	46.0	47.7**	32.9	37.2	38.5**
Japan	16.1	17.9	19.7**	72.6	78.5	80.0**	24.2	28.0	30.1**
Luxembourg	...	...	...	...	...	...	...	...	...
Netherlands	18.0	19.6	23.1	33.5	35.5	39.2	25.2	26.3	30.5
New Zealand	...	27.4	31.1	...	75.9	74.4	...	38.8	39.8
Norway	24.1	26.8	32.8*	54.9	50.6	50.0*	38.7	37.7	40.9*
Portugal	40.2	46.6	43.0	29.5	33.6	40.4	37.5	43.8	42.6
Spain	21.1	26.2	33.1	34.1	31.4	44 1	28.1	28.3	36.4
Sweden	36.1***	38.1	37.6**	...	72.7	82.5*	...	44.6	45.3**
Switzerland	...	...	...	...	...	...	...	...	...
Turkey	24.7	...	...	15.1	...	...	21.0	...	...
United Kingdom	...	28.3	32.9	...	58.2	58.9*	...	40.0	41.7*
United States	39.1	41.5	44.1	38.0	41.5	47.3	38.9	41.5	44.8
Yugoslavia	32.6	38.4	40.1*	35.1	41.7	42.8*	33.5	39.4	40.9*

Source: Educational Statistics in OECD Countries; OECD, Paris, 1977 (mimeo).

(*) 1974 (**) 1973 (***) 1966

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figure for university type enrolments had risen from 41.2 per cent in 1976/77(1). The historical under-representation of women in higher education thus seems to be being steadily corrected in most countries, within several cases the figures approaching their proportion in the population at large.

Another historically under-represented group has been students of low socio-economic status. Indeed one of the driving forces or legitimating arguments, behind the massive expansion of higher education in the period between 1960 and 1975 was the idea that expansion would lead to more balanced participation by all social classes: an egalitarian rationale. Low working-class achievement rates in compulsory education translate into low participation rates in post-compulsory education. The whole issue of social class and educational achievement is a major and complex one, on which there is a massive literature, and comments here can only be marginal.

First, it is not possible to generalise about students of low SES status in higher education in the way that one can about women. This is partly because the category is itself less well-defined; partly because the available figures are patchy; and partly because such evidence as there is, is ambiguous. In addition, the variables of type of institution and mode of attendance become important. Farrant(2) analysing trends in the United Kingdom notes that the social composition of university intake has hardly changed in twenty-five years, and that recent figures suggest increased proportions from the professional classes. Other figures on the social origins of university students also show no marked changes in distribution between the mid-1960s and mid-1970s(3). However, there is evidence in some countries of increased working-class participation in the "less noble" institutions or faculties in higher education, (non-university institutions, community colleges, colleges of advanced education, open faculties, etc.) and especially among part-time students(4). It may be that working-class participation in higher education as a whole is increasing, but in the mass, not elite, sectors and institutions. These are, however, the parts of the system with typically the highest failure and drop-out rates, so the notion of "participation" needs to be qualified by reference to "completion". However, in the absence of a major comparative survey, such an interpretation must remain speculative

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(1) Arsbole 79, Table 8 A11. Includes universities and specialised colleges.
(2) Farrant, J., Trends in Admissions to Higher Education in England and Wales, Leverhulme/Society for Research into Higher Education, forthcoming.
(3) See Chapter III.
(4) Towards Mass Higher Education: Issues and Dilemmas; OECD, Paris, 1974; Corrado de Francesco, "The growth and crisis of Italian higher education during the 60s and 70s, Higher Education, Vol. 7(2), May 1978; Farrant, op. cit.

Ethnic minority students are another traditionally under-represented group in some countries. This is, of course, a problem which affects some countries and not others, and is perhaps associated above all with the United States. In the period 1974-78, the enrolment of ethnic minority students grew there by 27.2 per cent, the fastest rate of increase of any identifiable group (female enrolments grew by 24.9 per cent, in comparison(1). How far this rapid growth was due to special admissions policies for blacks and other races, and how far it was due to general expansion is difficult to say. Whatever the explanation, it is the view of one writer at least that the United States' higher education system has in recent times become a central vehicle for social mobility and social integration(2).

So far the discussion focussed briefly on some groups of students - women, students of low SES, ethnic minorities - who although traditional students in the sense of being both young and qualified, are nevertheless non-traditional in the sense that they have historically been under-represented in higher education. What of the other three categories of students? Category (B) referred to young students who were not qualified in the normal way, and as already noted, this covers students from technical and vocational streams in secondary education who are nevertheless given a "second route" into higher education, by-passing the normal academic route. This category is relevant to European countries such as Austria, Denmark, France, Germany where upper-secondary education is either formally or effectively streamed. It is also relevant, to a lesser extent, to the United Kingdom, where students may enter higher education via non-advanced further education, i.e. with technical and commercial qualifications rather than the more academic "A" levels. The proportion of such "second route" students in most of the above-named countries was rather low in 1970(3) but since then changes in admissions regulations and up-grading of technical qualifications, for example, in France, Italy and Germany, have opened the door to a higher percentage(4). Such developments point to an increasing permeability of higher education boundaries, and an increasingly flexible system of entry.

Category (C) students are normally qualified, but somewhat older than the traditional intake. They may be older because they did not take up the option of higher education when they left school (for vocational or family reasons) and are thus returning to study after some, perhaps many years. Women in their late twenties or thirties often fall into this category. Or they may become older because they alternate or combine work and study, thus taking much longer to complete their course than the traditional full-time student. In some countries, this second group seems to have grown rapidly and spontaneously in

(1) NCES, Digest of Education Statistics, 1980, p. 99.
(2) Trow, M., Comparative Perspectives on Access to Higher Education, paper prepared for the Leverhulme/Seminar on Demand and Access, Edinburgh, June 1981.
(3) Pellegrin, J.P., "Admission Policies in Post-Secondary Education" in Towards Mass Higher Education, OECD, 1974, p. 40.
(4) Opening up Institutions of Higher Education. Contribution from Germany, OECD, Paris, 1981 (mimeo).

recent years, and one suggestion is that students are deliberately "hedging their bets" on higher education, partly because of the uncertain value of degrees and diplomas, and partly because of the need to maintain a foothold in the job market(1). Such students will aim only to get by in their courses, and will spend the minimum possible amount of time and effort on their course work. Nevertheless, they do not drop out altogether, because although the relative value of a degree may have declined, it is still better than not having one. The percentage of French students who admit to being employed at least part-time, from time to time, has risen from 32 per cent in 1973 to 49.5 per cent in 1979(2). In fact, the growth of part-time study is one of the most marked features of higher education in recent years in a number of countries. More than 50 per cent of new entrants in some Italian faculties attend part-time or plan to attend on a part-time basis(3). In the United States, part-time students constituted 35.5 per cent of the total student body in 1978, against 33.4 per cent in 1974(4). In Canada, the percentage of part-time university enrolments grew from 26.3 per cent in 1965/6 to 37.3 per cent in 1978/9(5). Increases in part-time study have also been reported in the United Kingdom (advanced further education and the Open University), Sweden and Australia. Such increases appear to be sharper in the non-university sectors of higher education, but they are sufficiently widespread and cross-national to warrant a general explanation.

Category (D) students are both older and most of them do not have the normal specifications for entry. Evidence for increases in this "new" group is mixed, but some countries show a sharp increase. In the United States, from 1974 to 1978, enrolments aged 25-34 increased by 16.7 per cent and aged 35 and over by over 27 per cent. The larger increase in the latter group can be accounted for by women enrolling in college (thus two of our "new groups" overlap)(6). In the United Kingdom the increase has been much sharper in polytechnics and colleges than in the universities; students over 21 now account for 37 per cent of all full-time public sector entrants (excluding overseas students)(7). While it is impossible at present to generalise across all OECD countries, it seems that there is enough evidence to justify us in considering category (D) students as a major new group.

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(1) Geiger, Roger, "The changing demand for higher education in the 70s; adaptations within three national systems" Higher Education, Vol. 9 (3), May 1980.
(2) Jarousse, Evolution du Comportements des Etudiants CREDOC, 1981, p. 9. These figures should be interpreted with some caution, for the reasons stated earlier.
(3) See Chapter II page
(4) NCES, Digest of Education Statistics, 1980, p. 9.
(5) Stats. Canada Universities: Enrolment and Degrees, 1978.
(6) NCES, op. cit.
(7) Squires, G., Mature Entry to Higher Education, Leverhulme Seminar on Demand and Access, Edinburgh, 1981

When reviewing, evidence relating to the increased participation in some countries of new groups: women, students of low SES, ethnic minorities, students from non-academic secondary streams, part-time students, and adult students it is clear that some of these categories overlap; a 30 year old part-time woman student would fall into three of them. However, it is useful to maintain the distinctions between categories when it comes to analysing possible reasons for the increases. We shall comment on four such reasons.

The first and most obvious reason is the general expansion of higher education, while although now halted in many countries, has only been reversed in one or two. To explain the new groups in these terms is to posit a general order of arrival of types of students, with the relatively privileged arriving first, and the most disadvantaged arriving last. Therefore, as the system expands, more and more of the historically underprivileged groups get drawn into it and thus account for an increasing proportion of enrolments. To maintain their relative advantages, the privileged groups concentrate more in the elite parts of the system, or else find ways of maintaining their position outside the system altogether. Inherent in this explanation is a view of education as a positional good. Participation by the newer groups only rises as participation by established groups reaches near-saturation, and the growth rate for each group takes the form of an elongated S-curve(1). This model implies that the order of arrival can only be altered (or the curve sharpened) by special admission policies targeted at the group in question, and even then it is difficult to breach the "iron law".

A second reason for the growth of new groups may be in the decline of traditional groups. In some countries demographic trends have led to or will lead to, a decline in the intake from secondary schools. In some countries too, demand for higher education is either static or declining, among qualified, young school-leavers. In such circumstances, institutions can only maintain their size and staffing levels if they actively go out and attract new groups of students to compensate for the actual or impending fall-off. Whether national governments allow them to tap new markets in this way is another matter.

Thirdly, new groups may be the results of broad social movements and/or social policies: women and ethnic minorities come to mind as examples. The relationship between movements and policies is complex, and one can perhaps distinguish between movement-led increases (women ?) and policy-led increases (ethnic minorities ?). However, it seems clear that a policy must have the backing of a broad social movement to be successful, and

(2) Halsey, A.H., et al. Origins and Destinations: family, class and education in Modern Britain, Oxford: Clarendon Press, 1980.

perhaps the relative failure of policies to increase participation among students of low SES can be partly explained by the absence of a major social egalitarian movement in the 1960s and 1970s comparable to the movements for women's and ethnic rights.

The fourth type of explanation for increased participation by new groups relates specifically, or perhaps only to part-time and occasional students. It has been suggested that such students are hedging their bets as between education and employment (and leisure). In a quasi-rational calculation they perceive that the benefits of higher education (as a positional good) are no longer clear, and accordingly they modify their commitment to it. Thus, paradoxically, while the expansion of higher education may have led more people to participate in it, that same expansion is a reason for not participating fully. With the rise in unemployment in many OECD countries, this strategy must make sense to many young adults since there is no guarantee that they will get back into the job market if they once commit themselves exclusively to higher education. Thus the trend towards recurrent education may result more from uncertainty (both about higher education and the labour market) than from the more "positive" reasons advanced by protagonists of the recurrent model.

The balance of these four explanations - general expansion, demographic decline, specific policies, and uncertainty - will vary from country to country not only because of the different state of its higher education system, but because of differences in the labour market and in social ethos. For those who work in higher education, however, two implications seem fairly clear. First, the intake of students is already, and is likely to become, more heterogeneous than before, in terms of background knowledge, age, and expectations. This possibility has already been discussed widely, and is fairly familiar. The second implication is less familiar. In the past, higher education has been seen as a total activity in the sense that it was the exclusive preoccupation of its students. Henceforth, staff may now have to come to terms with students for whom their studies are only a part of their lives; a part which takes its place among other parts.

III. WHERE ARE THEY STUDYING?

If the notion of an "order of arrival" is correct, it implies that new groups of students enter higher education in its least prestigious sectors, institutions and faculties, while the privileged traditional groups retreat to the higher ground of the "noble" institutions. The "order of arrival" would thus be complemented by an "order of access", in which the most open institutions are lowest in academic prestige, and the most selective institutions highest. This section, therefore, deals with this notion of an order of access as a hypothesis, and reviews the evidence for and against it. Are the new groups in fact to be found in the less prestigious institutions?

The question is complicated by the fact that academic prestige and employment value may or may not coincide. Indeed, the University of Aston which has one of the best graduate employment records in the United Kingdom, has recently received one of the largest cuts from the University Grants Committee. Whereas in the period 1960-75, the distinction between "noble" and "less noble" institutions may have been fairly clear, and useful, since then the growing emphasis on vocational relevance is leading to a different type of hierarchy based on academic prestige and employment value(1).

		EMPLOYMENT VALUE: HIGH	EMPLOYMENT VALUE: LOW
ACADEMIC STANDING	HIGH	I	II
	LOW	III	IV

Where then do the new groups appear, in terms of these four quadrants? Following the above line of argument it could be expected that they don't appear in I; the quadrant of high prestige and employment value (professional subjects such as medicine, law and perhaps engineering). An analysis of the social origin of Italian university entrants(2) provides some support for this, although one notes the very high proportion of "traditional" students in other subjects as well, notably letters, philosophy, modern languages and chemistry. The fact that quadrant I includes several traditionally male-dominated professions might serve to reduce the proportion of women students, and also of older students since the professional career-path typically necessitates early entry. In France, the percentages of traditional students are correspondingly high in medicine, chemistry, engineering and the écoles normales supérieures, but much lower in law(3). In Canada, women seem to have made some inroads in enrolments in medicine, but much less so into law or engineering(4). In general, what evidence is available from a number of countries suggests that of all the new groups, women are the most likely to have penetrated quadrant I but that even they are still a small minority in some professional fields of study.

Quadrant II is more complex, for two reasons: first the evidence is more mixed, and secondly, there are strong variations among countries, depending on how selective are the subjects and/or the particular employment situation for graduates. In the United Kingdom in particular, a good degree in Classics, English, Philosophy or History is taken as evidence of a high all-around

(1) See Chapter II.
(2) See Chapter II.
(3) L'Enseignement supérieur en France, Etude statistique et Evolution de 59/60 a 77/8, p. 63.
(4) Stats. Canada, Education in Canada, op. cit.

intellectual ability, which will benefit the possessor in the non-specialist graduate market (e.g. Civil Service entry). Quadrant II also includes many subjects appropriate to a teaching career, and would thus attract students looking to such a career; on the other hand, school populations and therefore teaching opportunities have been declining in a number of countries. The impression from the figures available is that while quadrant II may include a substantial proportion of women students, and some mature students, proportion of students of low SES, or from ethnic minorities is relatively low. Moreover, students from vocational secondary streams are unlikely to find their way into the rather "pure" academic subjects that characterise this quadrant. And although such subjects can lend themselves to part-time study, the selectivity associated with their academic prestige implies that even if part-time students are admitted, attrition rates may be high.

Quadrant III includes subjects which are vocationally marketable, but not particularly prestigious in academic terms: the kinds of technical and commercial subjects taught in many of the short-cycle, non-university institutions which grew up in OECD countries in the last twenty years, as part of the attempt to diversify higher education. There is a good deal of evidence from the United Kingdom polytechnics and colleges, the United States community colleges, the French IUTs, the Australian CAEs, and the Canadian CAATs and CEGEPs that such institutions attract new groups in substantial numbers, in particular students of low SES, from ethnic minorities, and from vocational secondary streams. Such students presumably view higher education primarily as a means towards employment, or better employment, and for them the positional value of a qualification is paramount. And since such institutions often permit and encourage part-time study, the proportion of part-timers in them is often very high indeed. Where older students are involved, they will often be upgrading an existing vocational qualification.

Quadrant IV is low in both academic prestige and vocational relevance. It includes some social sciences, some non-traditional arts subjects; and some difficult to classify, e.g. life skills, independent study projects, ethnic studies. Quadrant IV seems to attract fairly large numbers of non-traditional students, and it is this fact that raises some difficult questions about the overall expansion of higher education. Is quadrant IV simply acting as a cheap safety valve for the new groups? Are such students being deluded into thinking that such an education will give them a relative advantage in the job market, when it may not? Are standards generally lower in quadrant IV? Are attrition rates higher? As against these problems, one must set the fact that quadrant IV does reach out to groups of students who have not been reached before and in so doing, often displays considerable ingenuity and innovation in marketing, curricula and teaching.

IV. SPECIAL ADMISSIONS POLICIES AND PROCEDURES

Not all new groups of students enter higher education through special admissions policies. Insofar as the growth of new groups is due to the general expansion of higher education, such students are likely to enter under the normal admissions regulations, and their identity as a group is something that is perceived after, rather than before admission. However, special admissions policies have also played a key role in facilitating the access of some new groups in particular adult students and ethnic minority students, and in this section the aim is to review examples of such policies in a number of countries. It is important to emphasize that the special policies must always be seen in relation to the traditional policies of the country concerned.

Many Australian universities now make some provision for the special admission of "non-standard" (e.g. unqualified) or mature students(1). In most cases, the numbers involved seems to be relatively small, although some institutions consider each case on its individual merits rather than fixing a quota in advance. Control over such special admissions is often left to individual faculties and departments. The requirements and procedures vary a good deal:

> "Some mature age applicants satisfy admission requirements by gaining an aggregate of marks on three subjects (rather than the standard five) in the New South Wales Higher School Certificate. The University specifies the aggregate required which is normally approximately 3/5 of the aggregate required for standard admission. Other 'non-standard' candidates are not given any kind of score and are not ranked. The decision on whether to admit or not to admit is made on the basis of the individual merits of each case. (ANU)
>
> Candidates must have suffered from 'educational disadvantage' as defined by the Committee on Special Admissions, a joint Council/Professional Board Committee which controls our Special Entry Scheme, and must not have the necessary minimum entrance requirements. They are ranked for admissions purposes by means of an ASAT test provided by the Australian Council for Educational Research. Control data supplied by our Faculty of education in conjunction with our Higher Education Advisory Research Unit is used to relate the scores obtained by candidates in this test to the normal entrance requirement." (Monash)

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(1) Australian Vice-Chancellors Committee, Special Admissions, Canberra, 1975. For a more detailed account of new groups in Australia, see Mature Age Students in Australia, OECD, Paris, 1981 (mimeo).

"The University operates a scheme specially designed to cater for persons whose study may have been interrupted in earlier years or who may have been educationally disadvantaged, for whatever reason. This applies to persons over the age of 25 on 1st March of the year in which they intend to enrol and such applicants who do not meet our ordinary, special or adult matriculation requirements are invited to write a letter to the University indicating their reasons for believing that they are capable of successfully undertaking university study." (New England)

"In 1975, the University admitted about fifty people of mature age who had no academic qualifications on which matriculation could be given. These people were admitted on a committee's assessment of their clarity of purpose, motivation, and capacity. The University has decided to continue this scheme for 1976 in an amended form and it is likely that about fifty places will again be made available, most in courses that do not require mathematics or science prerequisites." (New South Wales)

These examples give some idea of the variation in special admissions schemes in Australian universities. However, it should be remembered that many, perhaps most, mature students enter with conventional qualifications, which they return to school to obtain. By contrast, a national scheme of quota-based admissions has recently been introduced in Danish universities(1). This scheme has been prompted by two problems: first, the massive increase in the proportion of ninteen-year-olds qualifying for entry to higher studies (now approaching 30 per cent of the age group); and secondly the high wastage rates in certain branches (approximately 70 per cent in the humanities and 50 per cent in the social sciences). The new admissions scheme is part of an attempt to control and plan overall access to higher education; medical faculties have already imposed a numerus clausus.

The new quota scheme applies to all faculties except psychology and teacher education. There are three quotas: one for students coming directly from the academic streams in upper-secondary education (based on marks); one for students who combine some secondary qualifications with some work experience; and one for mature students (25 or older) foreigners and students with special qualifications.

Both school marks and work experience are translated into a common system of admission "points". The student's school-leaving marks are averaged on a 1 - 13 scale. For nine months' work, 1.09 points are given, plus 0.01 points for every subsequent month up to a maximum of 1.18 points. These work-points can then be added to the school-leaving mark. A unique feature of the Danish scheme is that the proportion of students entering under each quota varies from faculty to faculty, thus reflecting different emphases on academic qualifications and work experience. The proposed ratios for 1976 were as follows:

(1) Times Higher Education Supplement, 25th March, 1977.

	Marks Only	Marks & Work Experience	Mature Students and others
Natural Sciences	70	20	10
Humanities/ Social Sciences	60	20	20
Medicine/ Dentistry	50	40	10

In the technology faculties, the work experience must be relevant to future studies, and have lasted for at least eighteen months. The quotas for all faculties may be altered from year to year, as may the total number of new entrants. It is too early to say how the Danish scheme will work in practice, but in theory, at least, it solves two problems. The first is that of the student who is neither adequately qualified nor adequately mature - for example the 22-year-old who has some work experience and moderately good school marks. In other countries, such students can fall between two stools, while "ordinary" students enter under normal admissions conditions, and mature students enter under a special policy. The Danish scheme allows for their case; and it is worth remembering that such students are often more able to take up the offer of a place (because they face fewer situational barriers such as money, family responsibilities, or time) than the 25-year-old.

Secondly, the Danish scheme recognises explicity the varying degrees of relevance which work and life experience may have to different branches of study. The difficulties of mature students on science and mathematics courses has already been mentioned, and it is precisely here that the Danish quota for "marks only", i.e. direct admission from upper-secondary schools, is highest. Conversely, the value of experience, allied to some academic prowess, is recognised in the corresponding 40 per cent quota in medicine and dentistry. The fierce competition for entry to medical faculties in other countries, which accentuates the academic emphasis, may not be entirely beneficial for the training of general medical practitioners.

There is no national policy in the Federal German Republic aimed at facilitating the entry of mature or unqualified students to degree courses(1). The upgrading of degrees and examinations taken at technical colleges (Fachhochschulen) has meant easier access to universities for students with technical/vocational qualifications. However, for the aspiring German student, entry

(1) Admission Policies in the Federal Republic of Germany, OECD, Paris, 1976 (mimeo).

to degree-level courses still lies mainly in the possession of the Abitur, the academic upper-secondary school-leaving certificate. The working adult student usually has to go to evening school to prepare for this examination in order to gain entry; although a third educational route has been opened up by the "examination for talented study applicants". The regulations for this vary to some extent from Länder to Länder, but applicants must normally be aged 25 or over(1).

There are a few local exceptions to this rule (which does not apply to non-degree courses). In the Land (region) of Northrhine-Westphalia, the Law on the Foundation and Development of Comprehensive Higher Education Institutions (Gesetz über die Errichtung von Gestamthochschulen im Land Nordrhein - Westfalen) states that exceptions to the general admissions requirements can be made for the purpose of testing new types of courses or institutions. The Fernuniversitat Hagen (an experimental distant-study university in the region) is planning a special admissions scheme for unqualified students. The Fernuniversitat constitutes the main effort to facilitate the entry of adults with work experience to post-secondary education. Nearly 74 per cent of students are over 25 years old, and nearly 50 per cent are studying for a degree on a part-time basis; 73 per cent of the students had previously completed some limited professional training.

In the above Law, another clause allows for the admission to certain university-type streams of students whose previous schooling entitled them to admission to technical colleges only. A subject-oriented qualification for university admission can be given to those students who successfully complete the common, initial two-year period of study, together with bridging courses in English, Mathematics and German. Beginners with lower qualifications can thus complete university studies without delay. This scheme has been in operation - with growing numbers - since 1973/1974.

The comparative lack of special admissions policies in German universities must be weighed against the widespread opportunities for continuing vocational education which do not require possession of the Abitur, and which were reinforced by the Labour Promotion Act of 1969. This Act provided subsidies for institutions to expand their capacity for further vocational training, and subsistence payments and reimbursements of fees for students, under certain conditions. Some early evidence on the working of the Act suggested that the opportunities were being taken up by employees under rather than over 35, skilled rather than unskilled workers, and that people without the primary school final certificate were hardly represented at all(2). These findings, admittedly based on a survey conducted when the Act had only been in

(1) See contribution from Germany. op. cit.
(2) Rudolph, H., Post-Formal Education in the Federal Republic of Germany: an estimate of the volume and cost, OECD, Paris, 1974 (mimeo).

force for one year, are nevertheless similar to those cited by Besnard and Liétard in a study of the French schemes for subsidised continuing education(1). Besnard and Lietard also suggest that such subsidies are likely to be taken up by larger, rather than smaller companies, and by men rather than women.

A major reform of Swedish higher education affecting organisation, administration, planning, curricula and admissions was launched in 1977. Most of the changes involved are the final outcome of a process of innovation which was initiated by the 1963 University Planning Committee (U68), although some of the changes stem from subsequent government commissions. These reforms have been examined in some detail by Dahllöf(2). The main thrust of the reform has been (a) to create a more unified or comprehensive system of higher education, including universities and non-university institutions; (b) to organise this comprehensive system by regions; (c) to adopt a long-term, national planning strategy which controls overall demand and allocates resources; (d) to emphasize the vocational relevance of degree courses; and (e) to introduce a new national admissions scheme. It is still rather early to guage the effect of each of these measures.

A second major source of change and uncertainty in Sweden has been the fluctuations in demand experienced in recent years. These changes have mainly affected the open sector of higher education - the faculties of humanities, social sciences, law and theology, and to a certain extent the natural sciences. The closed sector grew steadily during the 1960s, and has since levelled out. Certain changes in the composition and distribution of student body have also taken place, again mainly in the open faculties. Among these have been (a) an increased number of students not completing and not aiming at completing a full degree; (b) an increased number of adult students (over 25 years of age); (c) an increased number of students in first-year courses and a decrease at subsequent and post-graduate levels, and (d) a continued decline in the numbers studying the natural sciences.

The new national, admissions policy should be seen in the light of an experimental scheme which has been in operation since 1969. This has allowed adults over 25 years of age, and with at least four years' work experience, to enter certain courses in the open faculties. This was only the general admissions requirement; the institutions and courses normally added special requirements, typically the achievement of a level equivalent to the 11th year of schooling in the relevant subject(s). Despite these special requirements, the percentage of

(1) Besnard, P., and Liétard, B., La Formation Continue, Presses Universitaires de France, 1976.

(2) Dahllöf, U., Reforming Higher Education and External Studies in Sweden and Australia, Almqvist and Wiksell International, Uppsala, 1977. Lillemor, Kim: "Widened Admission to Higher Education in Sweden" European Journal of Education, Vol. 14 No. 2, June 1979.

students entering faculties of liberal arts and sciences under the 25:4 scheme rose steadily from 4.8 per cent in 1969-1970 to 22.5 per cent in 1975-1976. (The corresponding percentages for the "normal" entry from academic secondary education dropped from 85.1 per cent to 63.9 per cent over the same period.)

Under the new admissions policy, there are four main categories of entrant:

(1) those with three years' upper-secondary schooling (academic streams);

(2) those with two years' upper-secondary schooling (vocational/technical streams);

(3) those with a certificate from a folk high-school;

(4) those 25 years of age, with at least four years of work experience.

Where places are limited, the number of students accepted from each of the above groups is proportional to the number of applicants in each category (with the exception of foreign students who are alloted up to 10 per cent of available places). Applicants in the first two groups may add work experience to their school marks according to a credit-points system. There is also a rule stating that at least 20 per cent of the places on each course will be reserved for applicants with school marks alone. Applicants in the third group may also add work-experience to credit in the same way. Adult students in the fourth group require entrance points corresponding to school marks by taking a test of general study ability. They may also add "bonus" working experience (exceeding the four-year requirement). In all four groups the applicants are ranked according to their credit points, and selection is made according to their total. The whole scheme applies to full degree programmes; entry to single courses is decided locally and the requirements are less stringent.

The most obvious case of a special admissions policy in the United Kingdom is the Open University, which admits only adult students (over 21) on a first-come, first-served basis, subject to certain quotas. Part of the importance of the O.U. has been its demonstration that such a radical departure from conventional admissions policies is compatible with university-level education. However, all United Kingdom universities, polytechnics and colleges have special admissions policies, though, as in Australia, these are not centralised, and vary from institution to institution. In general, not much use is made of them in the universities, the vast majority of mature students, for example, being admitted with the conventional two "A" level requirement. However, the universities are beginning to develop part-time degrees, partly as a response to the impending fall in 18-year-olds, and more "special case" admissions are therefore likely. In the public sector polytechnics and colleges, the situation is much more complex. What can be said is that the proportion of mature and part-time students there has been rising

substantially and steadily for some years, and this indicates a greater flexibility in admissions policies. Moreover, the public sector institutions also draw on "second route" students via the vocational qualifications of the Technician Education Council (TEC) and Business Education Council (BEC).

There is a great variety of special admissions policies for new groups of students in the United States. This reflects not only the size of the country and the diversity of its institutions, but also a concern for adult and unqualified students unparalelled in any other Member country. This is probably due to a number of factors: the early diversification of American post-secondary education; the flexibility and universality of secondary education; the high enrolment ratio at post-secondary level; the general ideology of "opportunity"; the concern in recent decades with minority or disadvantaged groups, whether of colour, sex, or age; and the rise in the median age of the population. One might also add, in recent years, the fall-off in "normal" entrants due to the curve of the birth-rate.

It is impossible here to give anything like a complete account of special admissions policies in the United States. (it should also be noted that the role of open admissions policies is central in some institutions, particularly the Community/Junior Colleges.) Reference is made to three developments which may be of more general interest. They are the work of CASE/OEC (Commission on Accreditation of Service Experience/Office of Educational Credit); the College Level Examinations Program (CLEP); and the research carried out by CAEL (Co-operative Assessment of Experiential Learning).

The use of transferable academic credit is well established in the United States, though less familiar in Europe. Transferred credit may be used either to grant admission to an institution, or to grant admission and advanced standing (exemptions from certain course requirements)(1). This system operates to the peculiar advantage of adult students, who may well have interrupted their studies at one time or another, or moved from place to place. The availability of advanced standing might persuade some adults that it is worthwhile completing their degree or continuing their studies, since they do not have to start again at square one.

The granting of credit for prior study at another college or university presents certain problems. On the practical level it takes time to evaluate a student's transcript, and to dovetail the courses he has taken with those he intends to take. Vast differences in standards also exist between institutions in the United States. Nevertheless, the system of inter-institutional credit transfer is widespread, effective, and accepted.

(1) See Burn, B., "The American Academic Credit System" in Structure of Studies and Place of Research in Mass Higher Education, OECD, Paris 1974.

The accreditation of prior learning in non-collegiate institutions is more difficult, and it is here that the work of CASE (Commission on Accreditation of Service Experience) is relevant. For many years, CASE has evaluated training and education carried out in the armed forces for transfer to educational institutions. This has enable servicemen to move much more easily into post-secondary education than would otherwise have been possible. CASE periodically published Guides which list service courses and recommend credit equivalents, and to which admissions offices can refer quickly and easily. Each service course is evaluated by a three-member, subject-matter specialist team. The members of this team are nominated by regional accrediting associations, professional and disciplinary societies, educational associations, and educational institutions. Only service courses which are approved by a central authority within each service are considered. Provided that certain conditions are met, one semester credit hour is awarded for every 15 hours of classroom contact plus 30 hours of laboratory work, or for not less than 45 hours of shop instruction. However, the final decision as to whether to award credit or not is with the "receiving" institution(1).

Following recommendations by the Commission on Non-Traditional Study, CASE has been succeeded by the Office of Educational Credit (OEC) which extended its work to cover courses organised by businesses, unions, professional associations, and industrial and government training programmes. The consequence of this is that a much wider range of non-collegiate courses will now be "plugged in" to collegiate degree or credential programmes. There are problems, of course: it is not clear, for example, that courses on economics sponsored by businesses or unions will be as objective as college-run courses. The logistical problem of properly evaluating the enormous numbers of available courses is a daunting one, as are the financial implications. Nevertheless, the work of OEC seems to take its place in a logical historical development which began with one university (Harvard); spread to other universities and colleges; grew to include the armed forces; and is now spreading into civilian life.

Another means whereby new groups of students can by-pass the normal admissions procedures is the standardized non-taught examination, that is to say, an examination which is not prepared for by formal courses, but which has a relatively wide use and acceptability. The College Level Examinations Program in the United States is such an examination. The CLEP program was started in 1965 and introduced into colleges and universities in 1966. By the early 1970s, over 1500 institutions in the United States granted credit on the basis of CLEP scores. Although the original purpose of CLEP was to open up channels to students who had acquired their knowledge non-formally,

(1) Trivett, D.A., Academic Credit for Prior Off-Campus Learning, American Association for Higher Education, Washington, 1975, p. 42.

"conventional" students are now making increasing use of it to gain up to a whole year's credit before they start college: Trivett reports that in 1973, at least 40 per cent of all CLEP candidates were under 19 years of age(1).

CLEP is divided into two parts: general examinations and subject examinations. The General Examinations test basic knowledge in each of five main areas (English composition, Humanities, Mathematics, Natural Science and Social Sciences/History) through the use of a 60-minute multiple-choice test. The Subject Examinations test knowledge in particular subjects, with a special emphasis on concepts, principles and relationships. They usually consist of a 90-minute essay. The scores in all examinations are norm-referenced so that the "cutting scores" (i.e. pass marks) can vary from one year to another. The "receiving" institution is also at liberty to decide at what score they will begin to award credit. Relatively small changes in the "cutting score" can alter the number of passes substantially. CLEP is not the only agency in the United States that grants credit by examination. A survey in 1973 showed that among institutions granting credit in this way, 78.4 per cent used CLEP, 8.4 per cent used the American College Testing Program, and 4.3 per cent used the New York Regents College Proficiency Examination Program.

Credit by examination appears to be well-established in the United States. There are certain criticisms, however: the fact that some conventional students take advantage of CLEP whereas many non-traditional students do not; the problem of fixing appropriate cutting scores, and "doubts about whether an examination can measure what one receives in a course"(1). The dissociation between a taught course and examinations (which Houle regards is one of the ways in which post-secondary education can be made more flexible) has a precedent in the External Degree Examinations of the University of London, which date from the last century; a reminder that what is non-traditional in one country may be quite traditional in another.

One of the most recent and controversial ways in which normal admissions requirements in the United States have been modified is the accreditation of prior non-formal "learning experiences". Since adults have usually had many opportunities for such learning experiences or "experiential learning" during their adult, working lives, this innovation is of special significance to them. In the past, a certain amount of working experience in a particular field has sometimes been one of the requirements for admission to a master's degree programme. In-service or post-graduate courses have demanded a first degree plus x years working experience in the field. And some degree courses have contained a practical "sandwich" element in which the student goes and works in a real-life situation (as an engineer in a factory, or a teacher in a school) for anything

(1) ibid, p. 23.
(2) ibid, p. 33.

between three weeks and a year. "Experiential learning" is different from any of these; it entails the granting of academic credit for things which were learned quite outside any educational or instructional framework. Academic credit for experiential learning has been awarded by some institutions in the United States for several years now, and detailed research has been carried out by the Co-operative Assessment of Experiential Learning (CAEL) organisation(1). In particular, they have been studying the following four areas:

(1) The awarding of credit for interpersonal skills;

(2) The use of portfolios in presenting evidence;

(3) The accreditation of work experience;

(4) The use of experts in assessing learning outcomes.

The potential advantage to non-traditional or adult students of this kind of development is obvious. Alan Tough's work has shown the extent to which adults habitually engage in "learning projects" in the course of normal life, spending anything from ten to several hundred hours learning about particular problems or an area which is of current interest or use to them(2). Non-formal learning seems to cluster naturally around themes; it is not random. Nor does it remain wholly unconceptualised, in a raw experiential state: sense and meaning are made out of it.

There are both practical and theoretical problems in the evaluation of experiential learning. To begin with, it is time-consuming; individual consideration has to be given to each candidate, and no two candidates are alike. Evaluation typically involves not one, but several members of staff. Experiential learning may remain largely pre-theoretical: whereas formal knowledge is typically organised and structured with reference to concepts, theories and disciplines. However, one of the most interesting aspects of CAEL's work is that it inevitably raises questions about the evaluation formal learning, as well as experiential learning, and may lead eventually to a better understanding of conventional modes of assessment and evaluation.

The work of CASE, CLEP and CAEL represent only three examples of a wide range of developments which affect new students in the United States. The implications of such developments for educational standards will be discussed briefly below: The possibilities and problems of transferable credit have been explored further in the United States than in any other country.

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(1) Current Practices in the Assessment of Experiential Learning, CAEL Working Paper No. 1, Princetown, 1974.

(2) Tough, A., The Adult's Learning Projects, Ontario Institute for Studies in Education.

In this section, some examples of special admissions policies have been reviewed in six countries: Australia, Denmark, the Federal German Republic, Sweden, the United Kingdom, the United States. Many more examples, in these and other countries, have necessarily been omitted. It is very difficult to give any overview of these current trends: the variety of developments defeats generalisation, but on the other hand may provide scope for countries and institutions to learn from one another. However, it is possible to identify a number of basic dimensions. One of these has to do with centralisation and decentralisation. A number of countries, among them Sweden and Denmark, have adopted centralised admissions schemes with uniform criteria and a common "points" system throughout the country. Others such as Australia and the United Kingdom, have left control of admissions very much in the hands of individual institutions and even academic departments. There is something to be said for both approaches: national schemes are complex and difficult to agree on, but they are likely to be nationally known and understood; local schemes are easier to set up, and potentially more responsive to individual cases, but they are unlikely to attract as much publicity, and are at the mercy of local academic interests which may fluctuate over time. The centralist/de-centralist choice no doubt reflects the nature of the educational system as a whole in each country. It would thus be more useful to compare likes rather than unlikes, and comparative studies of schemes in Sweden and Denmark or Australia and the United Kingdom might yield useful information.

There is also a quantitative/qualitative dimension in special admissions schemes. This can be seen, for example, in the varying emphasis which Australian universities place on formal quantifiable measures (such as aptitude tests or examinations) or on less formal, qualitative measures, such as essays, statements of intent, or interviews. The admission of new students raises the same selection and assessment problems that exists with all students but these are perhaps made more acute by the attempt to measure "potential", or "motivation" in addition to, or in lieu of, achievement.

There is clearly also a legal and constitutional dimension to admissions. This has become most sharply apparent in the United States, with the Bakke case, in which a white student challenged the constitutionality of preferential quotas for disadvantaged ethnic minorities. The case involved complex questions about the balance between individual and group equity, and about the "natural relevance" of admissions criteria.

In general, it can be said that admissions policies in post-secondary education are becoming more complex, both in their criteria and in the procedures used. This complexity is an aspect of the increasingly complex nature of higher education as a whole, and of the relationship with upper-secondary studies in particular. What used to be a unique relationship between academic secondary schools and higher education has now been relegated to a special relationship; many other factors and needs are now taken into account.

Finally a note of caution should be introduced. It is not enough for new groups of students to be admitted to higher education: they should be admitted to courses appropriate to their needs, interests and abilities. This implies a process of counselling before admission: a process which can hardly be carried out by any one institution. Since it may involve choices between institutions. There is therefore the need for "neutral" counselling services, particularly for adults, which can help to diagnose the individual's needs, and advise him or her on the appropriate alternatives. Such services have recently grown up rapidly and spontaneously in several countries: there are some 40 in the United Kingdom now, often operating on a quasi-voluntary basis. Greater support for such services would help to ensure that new groups of students found the subjects, levels and modes of study most appropriate to them.

V. LONG-TERM ISSUES AND POLICIES

As seen above, substantial numbers of "new groups" of students are now entering higher education in a number of countries: women, ethnic minorities, students of low SES, part-timers, mature students. It has also been suggested that such students tend to concentrate in the less prestigious and/or more vocational sectors of higher education. We have reviewed some examples of the wide range of special admissions policies involved, and have argued that more comprehensive counselling services are needed. There are, no doubt, immediate and short-term problems associated with the admission of new groups, but what of the longer term? What does the advent of such groups imply for higher education as a whole, and for higher education policies?

It is worth pointing out first that the intake of new groups is itself the fulfilment, at least in part, of an earlier aspiration, to make higher education more diverse, more flexible, and more open. The last two decades have been characterised by the attempt not only to expand higher education, but to diversify it, and it can generally be said that higher education is more diverse in 1980 than it was in 1960, in terms of students, range of courses, structures of courses and qualifications, and types of institutions. This achievement should not be lost sight of in the discussion that follows.

Much depends on whether one views higher education as an intrinsic, absolute good, or as a relative, positional good. In the first case, access to any kind of higher education is worthwhile and valuable. In the second case, one needs to examine the relative worth or value of the higher education received, and it is this consideration which gives rise to disquiet in the case of new groups. If some new groups are concentrated in the less prestigious parts of the expanded higher education system, has their relative position changed at all? In other words, is the transition from an elite to mass system merely a transition from an externally maintained stratification to an internally maintained one? Where previously the crucial distinction was between those who received higher education and

those who did not, are the key distinctions now ones between different sectors, institutions or faculties? If they are, how much sense does it make to continue to speak of higher education as a whole?

A related question is the one of standards. A good deal of concern has recently been voiced in the United States about the decline of higher education standards as measured by the Scholastic Aptitude Test verbal and math scores. Similar concern has been voiced in the United Kingdom, though without the same evidence. It is a short step from this to argue that the decline in standards has been brought about by the expansion of higher education, and ergo by the admission of new groups of students. This may be true; many non-traditional students enter higher education with lower standards than traditional students, though whether they emerge with lower standards is another question.

However, the questions of standards always raises a more fundamental question: standards of what? Insofar as there is a general academic consensus about the criteria used for measuring students performance, the answer is fairly straightforward. However, such criteria can themselves be treated as problematic. Should everybody prefer the theoretical to the practical, the analytic to the intuitive, the specialised to the general? Are there perhaps educational and social costs involved in these preferences? In this connection, it is worth quoting the American writer Cross:

> "Over the centuries, we have refined our definitions of learning to mean a certain kind of school learning, and educational systems have been geared to nourish a narrow range of human talent. Although Taylor ... has estimated that the ability to manipulate the abstractions of academic work calls for approximately one-tenth of known human abilities, we are nonetheless obsessed with the importance of our restricted concept of learning. We seem to forget that other kinds of learning are equally important to our individual and collective welfare."(1)

A more pluralistic student intake may thus lead to more pluralistic criteria for measuring achievement in higher education. The greater the number of independent dimensions of ability involved, the greater the statistical chance of any one student achieving above average on one of them(2). There may currently be a mismatch between the heterogeneity of student abilities, and the homogeneity of assessment criteria. If expansion means simply that more people are expected to fit into the same traditional mold, it would be hardly surprising if this leads to lowered standards or higher attrition rates.

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(1) Cross, K.P., Accent on Learning, Jossey-Bass, San Francisco, 1976, pp. 12-13.
(2) ibid, p. 11.

Finally, the growth of part-time study, not as a planned move towards recurrent education, but as a market response to uncertainty, may have important implications for higher education. In many countries and institutions, the full-time student is seen as the norm, and part-timers have to do their best to fit in with arrangements which are essentially designed for full-timers. If the trend to part-time study continues, then the reverse may have to become the case: full-timers will have to have most of their teaching in the evenings, or at weekends or during vacations, in order to accomodate the needs of the part-time majority.

Beyond such practical alterations, a more subtle shift in attitudes is implied. The trend is to think of "student" as a largely exclusive and sufficient role for someone to adopt for several years of his or her life, usually in late adolescence or early adulthood. If study becomes more diffused through adult life, and less exclusive as an occupation, the boundary between students and non-students will become much less clear. There are potential advantages to this, which advocates of recurrent education have not been slow to spell out: relatedness of study to work and life, a comprehensive view of life-span development, perhaps more equal opportunities. However, it is worth remembering that certain forms and phases of higher education demand the contrary: concentration, consecutiveness, even isolation. Rather than polarise higher education into a small, young, elite, full-time sector, and a large, mass, older, part-time sector, one should perhaps be looking at ways in which full-time and part-time study can be sensibly combined, e.g. where a student begins and ends a course with a period of full-time study. This has implications not only for student support policies, but for developments in paid educational leave.

A final general point may be made. It is useful, in considering new groups of students, to analyse what extent the students have to adapt to the institutions, and to what extent the institutions have to adapt to the students. Much of this institutional adaptation is of a fairly practical and pragmatic kind: changed timetabling of classes, alterations in library opening-hours, provision for crèche facilities, and so on. But in some respects, the advent of non-traditional groups means that higher education has to take more account of, and is indeed more at the mercy of, market forces, than it has been in most countries in the past. The traditional school-leaving intake is now only a proportion of the total intake; and even that proportion is sometimes opting for a partial commitment to higher education, on a part-time or recurrent basis. In short, higher education appears to be becoming progressively detached from its traditional source - academic, upper-secondary education. If this is in fact the case, higher education will have to be viewed less as the apex of a system of consecutive schooling and selection, and more as an arena in which a plurality of groups, values and functions compete permanently for attention and resources.

CHAPTER VI

THE LINKS BETWEEN FINANCE AND ADMISSION POLICIES IN POST-SECONDARY EDUCATION

INTRODUCTION

The trends in admission policies for post-secondary education, discussed in the earlier chapters have many cost and resource implications. As shown in one of the Secretariat reports(1), the rising levels of participation in higher education in the 1960s led to an increase in the proportion of education expenditure allocated for higher education, between 1965 and 1970, followed by a more modest rise between 1970 and 1975 and a reduction after 1975. In some countries, concern about the rising costs of higher education, together with the economic recession and attempts to curb the growth of public expenditure had a direct influence on admission policies, but, as Chapters III and IV make clear, the development of admission policies for post-secondary education, and changes in selection procedures in upper secondary education reflect many different educational and socio-economic pressures, as well as financial constraints. Nevertheless, although it is true that the changes in admission policies cannot be explained purely in terms of economic and financial factors, recent trends in admission policy will clearly affect future levels of expenditure on higher education.

It is impossible to forecast the precise effect on expenditure because, as the report above mentioned(2), any change in expenditure devoted to higher education is the combined result of changes in enrolment and changes in costs. In some cases trends in admission policies are likely to lead to a reduction in expenditure, for example where the introduction of "numerus clausus" leads to a decline in post-secondary enrolments, or where the growth of short-cycle higher education leads to a fall in unit costs. On the other hand, policies designed to increase access for minorities, for adults or other "non-traditional students" may have the opposite effect. Therefore, the impact of changes in admission policies on the overall level of expenditure is difficult to predict, although it is probable that the combined effects of more selective admissions in universities, and general demographic trends will lead to a continuation of the decline in resources for higher education observed after 1975.

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(1) Higher Education Expenditure in OECD countries, Background Report by the Secretariat.

(2) Higher Education Expenditure, op. cit.

This in turn raises many questions about the implications of a declining share of educational expenditure, questions about the allocation of resources between different types of institutions, and about the effects of declining resources on the structure of institutions. However, it is not the purpose of this paper to examine the wider implications of changing expenditure and resource patterns, but to look at a more limited but important question, namely the relationship between admissions policies and methods of financing post-secondary education. For both admissions policies and methods of financing education affect the demand for post-secondary education by helping to determine the "price" of entry for the individual student. The price that the student must pay includes not only the direct costs of study, that is tuition fees, where these are charged, as in Canada, Japan, the United States and the United Kingdom, and expenses on books or travel, but also indirect costs, that is the costs of maintenance or earnings foregone, which as shown on the report of Higher Education Expenditures(1), may account for half the total cost of higher education in many countries. If access to post-secondary education were completely open, then the "price" of entry would consist of the direct and indirect costs of study. However, apart from needing to pay tuition fees and/or living expenses, the student must normally be able to satisfy other conditions, whether of age, ability, or entrance qualifications as well as being able to afford the fees and the indirect costs of education, in order to enrol in a particular school or college. These other conditions may, in fact, be more difficult to fulfil than the purely financial condition of "ability to pay". Therefore, the "price" of education, for the would-be student consists in satisfying all the conditions of entry, and not simply the amount of money he must find in order to finance post-secondary education.

Governments and institutions therefore determine the demand for education both by their policies on selection, entrance requirements and admission procedures and by the financial policies which determine how the direct and indirect costs of education are shared between students or their families and the community. The purpose of this Chapter is to examine the links between admissions policies and methods of financing post-secondary education in OECD countries, to see the extent to which they interact to determine demand, and to see whether government and institutional policies on admission and selection are directed towards the same objectives and are consistent with their policies on the finance of education, and resource allocation. For the last decade has seen not only the changes

(1) Op. cit. Table 5-1.

in methods of selection for post-compulsory education which have been discussed in Chapter IV, but at the same time a number of modifications and changes in methods of financing tuition and student aid. However, there has been little discussion of the relationship between these two areas of policy and of the extent to which admission and financing policies are interrelated, and mutually consistent, or the extent of co-ordination between the selection criteria which determine access to post secondary education and the criteria determining eligibility for financial aid.

For a variety of reasons, this has begun to change. After a period of rapid growth in the 1960s, the rate of expansion of higher education slowed down markedly in most OECD countries during the 1970s, reflecting static, or declining demand for higher education in some countries, as well as demographic trends(1). These demographic trends are likely to lead to continuing decline in student numbers in the 1980s or early 90s in a number of countries, unless there is a fairly dramatic increase in demand from previously under-represented groups.

Thus, institutions of higher education will have a powerful incentive to re-examine both their admissions policies and their financing, in order to prevent declining numbers and resources. At the same time, social and political pressures, as well as the economic pressures of continuing recession and high rates of unemployment, are forcing governments to re-examine the supply of post-secondary education and the distribution of resources.

But governments, as well as institutions, have a variety of objectives which determine admission and financing policies. In many cases, the objectives are not clearly defined, and the twin objectives of efficiency and equity may often conflict. Thus, government policies on admissions and financing may conflict, or at least, be badly co-ordinated. Governments may be attempting to limit public expenditure on economic grounds, at the same time as they are trying to broaden access to higher education on social grounds. Chapters II and III have shown that certain levels or types of education are becoming more selective at the same time as selection or streaming is being abandoned at other levels of education and similarly, student aid systems may become more selective at the same time as institutions become committed to policies of open access.

(1) See Annex to Chapter I.

All this means that the question of the links and interaction between financing and selection procedures is likely to receive more attention in the next few years, than in the past. Governments are beginning to look more closely at the way in which decisions about the supply of places in higher education, and changes in the rules for determining entry admission affect their financial policies, and decisions which determine the size and methods of subsidising institutions and students influence who is admitted. More attention is now being paid in many countries to the influence of financial factors on the demand for education, and at the effect of financial barriers and assistance for pupils at the post-compulsory secondary education, as well as the effects of financial aid to students at the point of entry. In other words it is increasingly recognised that the relationship between financing and admission policies is a two way one, and that questions of who should be admitted to higher education and how the direct and indirect costs of that education are financed must be looked at together. This involves looking at a number of different questions:

(a) Does the way institutions are financed determine their selection procedures and who is admitted?

(b) Are admission policies influenced by direct financial factors, such as students' ability to pay tuition fees, or to meet the indirect costs of education (maintenance costs and earnings foregone) or does financial aid to students succeed in eliminating such financial barriers?

(c) Are financial factors indirectly associated with selection criteria for example in determining who stays on in post-compulsory education, and thus who gains the qualifications for entry to post-secondary education?

The remainder of this Chapter examines these questions, looking separately at methods of financing tuition costs and financial aid for students to cover their maintenance costs.

The Finance of Tuition Costs

At present governments in all OECD countries subsidise the costs of tuition in higher education, but there are important differences, both in the level of subsidy and the form it takes. On average, students, or their families, receive a smaller subsidy from public funds in the United States, Canada, or Japan, than in European countries. This is because fees are changed in North America and Japan, whereas fees have been largely abolished in Europe. The fact that fees are charged

does not automatically mean that the individual student, or his family, bears a large proportion of the cost of tuition, since students may receive financial aid from the government towards tuition fees. There are two quite separate issues to be resolved:

(a) What should be the level of government subsidy for higher education?

(b) Should this subsidy be given in the form of grants to institutions, to permit free or low-cost tuition, or to students, to permit them to pay tuition fees?

At present, fees are charged in higher education institutions in the United States, Canada, Japan, the United Kingdom, but are mostly non-existent in Europe and in Australia although the Australian Government has just announced its intention to introduce fees for post graduate study. The proportion of income derived from fees and private donations varies considerably, between countries and institutions. In Canada, for example, fees provide about 9 per cent of the income of all post-secondary institutions(1). In Japan and the United States the situation differs markedly in public and private universities or colleges, even though fees are charged in both sectors. In Japan, fees and donations account for over 90 per cent of the income of private universities, but less than 5 per cent in public universities. In the United States 37 per cent of the current income of private universities is derived from fees, compared with 13 per cent in public institutions(2). In the United Kingdom, the pattern has recently changed. In 1974-75, fees amounted to only 4.5 per cent of all university income, but in 1977-78, fees were substantially increased, both for British and overseas students and for the first time postgraduate's fees were higher than undergraduate fees. The result of these increases were that the proportion of university income derived from fees rose to 13 per cent in 1977-78.

However, this did not mean that the burden of financing higher education shifted from the public to the private purse, for the majority of British students have their fees paid in full by Local Education Authorities. The increased fees meant that a larger part of the subsidy for higher education was channelled through individuals, rather than through institutions.

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(1) Report of the Federal-Provincial Task Force on Student Assistance. Ottawa, Council of Ministers and Secretary of State, 1980, p. 103.

(2) C. Finn, Scholars, Dollars and Bureaucrats, Washington: The Brookings Institution, 1978, p. 48.

There had been many proposals for such a change ever since the Robbins Committee pointed out that fees as a proportion of university income had fallen from 33 per cent in 1939 to 15 per cent in 1951, and advocated a reversal of this trend. In fact, university fee income continued to fall until it provided less than 5 per cent of total income by 1974-75. The arguments for channelling a bigger share of government subsidies through individual students, rather than through institutional grants were that:

(a) it would give universities a greater degree of autonomy;

(b) it would encourage them to be more responsive to student choice since their income would depend on their ability to attract students;

(c) it would make the true costs of higher education - and the size of government subsidies - more apparent to students and to taxpayers, and explicit subsidies are more efficient than "hidden" subsidies;

(d) it would encourage greater diversity of institutions, in terms of type and quality of courses offered.

All these arguments have implications for admissions policy. If universities derive their income from a variety of sources, including private as well as public funds, they are less likely to be subject to detailed government control on admission policy and selection criteria, than if the bulk of their income comes directly from government grants, as in most European countries. Moreover, if the income of institutions depends directly on their ability to attract students, and the fees they pay, then they have a greater incentive to compete with each other in terms of the type of courses offered. This may lead to greater diversity of institutions in terms of admissions standards, as well as curriculum and type of course. There is no reason to believe that institutions would necessarily compete with each other by relaxing admission standards. On the contrary, student demand is often greatest for institutions with the most stringent entry standards. Institutions which charge fees are no more likely to seek to attract students by lowering entry requirements than colleges receiving direct government grants. However if the supply of places exceeds student demand, then colleges will have to pay far more attention to the factors influencing student choice, including both admission policies and the level of fees. There has recently been some research in both the United States and the United Kingdom on the responsiveness of student demand to changes in price(1), but the question still has not been fully answered.

(1) See, for example, M.S. McPherson, "The Demand for Higher Education" in D. Breneman and C. Finn, Public Policy and Private Higher Education, Washington: The Brookings Institutions, 1978, pp. 146-196.

In the United States, the question of whether government funds should be channelled through students, by means of student aid which enables students to pay tuition fees, or through institutions, by means of grants which enable colleges or universities to charge low or even zero fees, is highly controversial, raising a number of issues including not only question of efficiency and equity but also the legality of government subsidies to institutions, given the fact that many institutions have religious affiliations and the American Constitution requires the clear separation of Church and State. Because of the wide variety of public and private institutions, with very different levels of fees, and because of the great differences between the financing policies of individual states, there are considerable disparities in the opportunities available to citizens of different states. For example, tuition fees in public institutions in California represent only 8 per cent of the actual average expenditure per student, whereas in Pennsylvania they are equivalent to 55 per cent and in Vermont to over 90 per cent(1). In addition, most states charge higher fees to students in public institutions who are not resident in the state. This additional geographical criterion, combined with the considerable variations in availability of student aid in different states results in considerable disparities in the costs of attending college faced by different students. For example in 1977-78 tuition fees in two-year public institutions averaged $589, compared with $1,812 in two-year private colleges, and in four-year public universities they were $621, compared with $2,476 in private four-year institutions.

According to one recent American study, this creates a "warped market place" for higher education:

"In one sense, these price differences attest to the heterogeneity that a decentralised higher education system has produced in the United States. Just as colleges and universities vary in their pedagogical style, curricular offerings, and expenditures per student, so do they range widely in the tuitions they charge. This is a form of diversity, too, and in its way it enhances the choices available to people contemplating college attendance, though perhaps not in ways many of them like. But because the price differences result at least as much from an unco-ordinated assortment of public and private subsidies as from true differences in the cost (and quality) of the educational products being offered, they make for a warped marketplace in which two institutions offering much the same education end up charging widely differing prices for it. This condition does not enhance equality of opportunity, nor does it foster educationally motivated choices on the part of the college-bound student, and in a time of declining enrolments it compounds the

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(1) C. Finn, op. cit. p. 50.

difficulties faced by some colleges and universities. For although many factors enter into the selection of colleges by students (and of students by colleges), the cost of attendance is not inconsequential(1)."

If demographic and economic changes force institutions to compete, more directly, for students, then the level of fees and admissions standards both represent policy variables which could be used, by institutions, to influence demand by students. In the conditions of excess student demand in the 1960s mechanisms for influencing demand and regulating admissions to higher education were seen largely in terms of discouraging surplus students. This role is beginning to change, and demographic trends in the 1980s and 90s may well lead to a more marked change in emphasis, as institutions seek to use these variables as a means of attracting students, rather than limiting entry.

This raises the important question of free differentials between different courses, different levels or different students. In the United States and Japan, considerable variations exist between fees at public and private colleges, between undergraduate and postgraduate fees and in some cases between fees charged for different subjects. In the United States, as mentioned above, there are differentials in public institutions between in-state residents and students from other states. In the United Kingdom, since 1967, overseas students have been charged higher fees than British students, but since 1980 the fees charged to foreign students are supposed to cover the full-cost of tuition, and for the first time there are marked differences in the fees charged for different subjects. In 1980-81 overseas students taking a university degree in arts or humanities paid £2,000 a year, students taking science or technology courses paid £3,000 and those taking medicine or veterinary science paid £5,000(2).

The purpose of these dramatic increases in fees was to reduce the costs of the government subsidy to overseas students, as part of the general policy of cutting public expenditure. However, the policy of charging full-cost fees has a number of implications for admissions policies in the future. It could mean, for example, that only overseas students with generous scholarships or other forms of financial aid, or those from the highest income groups will be able to afford to enter British higher education, particularly to study the more expensive subjects. It will mean that institutions will apply different

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(1) C. Finn, op. cit. p. 51.

(2) For a full discussion of the policy of full-cost fees for overseas students see B. Williams (Editor) The Overseas Student Question: Studies for a Policy, London: Heinemann, for the Overseas Student's Trust, 1981.

selection criteria for British and foreign students. It is likely not only to reduce demand for higher education in the United Kingdom, but to change the composition of overseas students, with particularly adverse effects on students from the poorest developing countries. On the other hand if linked with a policy of selective scholarships, a policy of full-cost fees means that government subsidies could be concentrated on students judged to be of the highest priority, either in terms of academic standards, the needs of particular countries, or some other criteria. A policy of selective aid, unlike the policy of providing an indiscriminate subsidy, in the form of low or zero tuition fees, such as is the pattern in most European countries focuses attention on the choice of criteria for assisting students. Many people argue that this is more efficient than a policy of general subsidies for all students, particularly at a time of growing financial constraints when the alternative to a policy of full-cost fees may well be the imposition of quotas for foreign students, such as were introduced in a number of European countries in the 1970s, including Austria, Denmark, Germany, the Netherlands and Switzerland.

The very idea of numerical quotas is unpopular among many people, while others find the idea of students paying different fees for identical courses of study equally unacceptable and object to all attempts to apply the rules of the market to academic institutions. In fact the choice of whether to subsidise institutions or students reflects many historical and political factors as well as differences in educational and financial policies but it does have some interesting implications for admissions policy. For example, it is significant that the countries where fees are important, notably the United States, Canada, Japan and the United Kingdom are those where selection for higher education takes place at the point of entry, rather than in secondary schooling. Differentiation between types of secondary school, or streams, is much less in the United States for example, than was traditional in Europe, and the proportion of secondary school pupils gaining a school-leaving certificate is much higher (about 75 per cent) than in most European countries (where it averages 20 to 35 per cent). Accordingly, there is no assumption that a school-leaving certificate "guarantees" the right to higher education, as it has traditionally done in France or Germany and so a policy of charging fees is perfectly consistent with an admissions policy that confers no automatic rights. There is a great diversity of admissions standards in different universities or types of higher education in the United States as well as marked differences in the level of fees. This has given rise to considerable debate in the United States about the need for financial assistance for students to guarantee choice of institution as well as access for students from all socio-economic backgrounds, including those from the lowest income groups.

Both federal and state governments now provide a considerable amount of financial aid for students in the form of grants, highly subsidised loans and subsidised work-study programmes, and this student aid is used to finance tuition fees as well as living expenses. But the debate continues as to whether this financial aid is sufficient to ensure choice as well as access.

There is plenty of evidence that American students' choice of institution is related to their family income level. Table 1 shows the percentage distribution of undergraduate students by type of institution and family income in 1976. Low income students are more likely to go to public universities or colleges, where fees are, on average lower, and those from the highest income category are more likely to go to private institutions where average tuition fees are more than four times as high as in public institutions. Nevertheless, the existence of financial aid for students does ensure that some students from the lowest income category are able to afford the most expensive institutions. However, those who advocate a policy of highly subsidised tuition argue that such a policy would help low income students even more than student aid which enables them to pay fees. On the other hand attempts to analyse exactly how responsive demand for higher education in the United States is to changes in fee levels suggest that "cutting tuition (fees) in half ... would only raise enrolment by about 15 per cent ... A major implication of the low rate of price response is that attaining high enrolments through keeping tuition rates low across the board is a very expensive way to achieve access goals. Since most of the foregone tuition revenue resulting from a price cut would accrue to students who would attend college anyway, it apparently costs more than $1,000 in foregone tuition (fees) for each additional student attracted into college via a general price reduction(1)."

In other words, it is not possible to justify a policy of free or highly subsidised tuition, simply on grounds of equity or equality of opportunity. Such a policy in fact involves considerable transfers of funds from the general taxpayer to the higher income groups who generally benefit most from higher education. Even if the aim of the policy is to ensure that all students have freedom of choice of institution, and that low income students are not discouraged from high-cost colleges or universities, it is by no means obvious that a policy of low or zero fees necessarily achieves this objective.

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(1) M.S. McPherson, "The Demand for Higher Education" in D.W. Breneman and C.E. Finn, Public Policy and Private Higher Education, Washington: The Brookings Institution, 1978, p. 183.

TABLE 1

PERCENTAGE DISTRIBUTION OF UNDERGRADUATE STUDENTS IN HIGHER EDUCATION INSTITUTIONS, UNITED STATES, 1976 BY FAMILY INCOME AND TYPE OF INSTITUTION

Family Income Level	PUBLIC (Average Tuition Fees $ 526)	PRIVATE (Average Tuition Fees $2,365)
Under $5,000	7	2
$ 5,000 - $ 9,999	11	9
$10,000 - $14,999	17	15
$15,000 - $19,999	17	16
$20,000 - $24,999	16	15
$25,000 and over	23	31
Not reported	8	12
Total	100	100

Source: C.E. Finn, Scholars, Dollars and Bureaucrats, Washington: The Brookings Institution, 1978, p. 49 and 56.

... relationship between students' choice of institution and their socio-economic background has been demonstrated in countries where no fees are charged. In most countries students from higher income categories are considerably over-represented in medicine, which usually has the highest cost per student, and this is true regardless of whether fees are charged or not. A study in Sweden demonstrated that students from high income families are more likely to choose longer university courses, and children of manual workers are more likely to choose shorter, non-university courses(1). Clearly, one factor at work here is the length of course, and the higher indirect costs of study (including earnings foregone) even though tuition is free.

(1) M. Woodhall, Student Loans: A Review of Experience in Scandinavia and Elsewhere, London, G. Harrop, 1970, p. 136.

There are various ways in which students' choice of institution may be influenced by their socio-economic background, and it is not necessarily through the direct costs of study. Courses with higher than average costs per student, such as medicine or engineering, frequently have the most stringent entry requirements, in terms of examination results, grade scores, or operate a strict numerus clausus; they also tend to offer the highest returns to the individual, in terms of life-time earnings and social prestige. Such courses are more likely to attract students from higher social groups in any country, regardless of whether fees are charged. The OECD study of individual demand in post-secondary education concludes - "In general, in all the countries covered in this report ... the stronger the academic selection at entry to a particular institution of higher learning, the more socially selective that institution appears as well(1)." This is a result of many factors, including the degree of social bias in secondary schools, the career motivation of students, the admission policies of the institutions as well as financial factors.

In the United States and to some extent in Japan, where high and low fee institutions exist side by side, it is often the case that universities or colleges which charge the highest fees are also those with the most stringent entry requirements. On the other hand, short-cycle courses with much more liberal admission policies, (such as public two-year colleges in the United States) have the lowest fees. Thus, the financial and the academic requirements for entry tend to reinforce each other, as hurdles to entry, and as determinants of the "price" of education.

If, however, tuition is provided free, as in most European countries, then admission policies can still influence the financial cost of higher education, even if only indirectly. If a strict numerus clausus is applied, based on examination results, this may encourage pupils to re-sit examinations in the hope of gaining higher marks at a second attempt. This will either mean that they prolong their secondary schooling, in the hope of improving their examination results or that they enter some other type of institution in order to "mark time" while waiting to re-sit an examination, or they may seek private tuition. Whichever policy they adopt, they will incur additional indirect costs, in the form of earnings foregone, and they may also incur direct costs, in the form of fees for private coaching. In either case, this increases the private cost, or price of higher education. There have been various examples of this process in the 1970s in Germany, Greece and other OECD countries.

(1) OECD, Individual Demand for Education, Paris 1978.

There are, therefore, many ways in which the admissions policies of institutions influence the price of higher education for the individual student, whether or not fees are charged. Even if governments do not determine the price of higher education directly - by means of regulating fee levels - they determine it indirectly, by decisions about the supply of places, which influence admissions policies, and by decisions about student aid, which determine the indirect costs of higher education for the individual.

The Finance of Indirect Costs: Financial Aid for Students

Even if students are able to finance the costs of tuition, either because schooling or higher education is free, or because they receive grants or loans to cover fees, there may still be financial barriers to access in the form of earnings foregone while studying. In all OECD countries student aid policies provide some form of subsidy for students' living expenses, in the form of grants, loans or a combination of the two, often combined with tax concessions and subsidies for food, accommodation or travel(1). In most countries, one of the main objectives of student aid is to ensure that poor students are not prevented from entering or continuing higher education, by inability to finance their living expenses. Student aid programmes aim to weaken the influence of financial factors on access to higher education, but it is increasingly recognised that financial barriers at the point of entry to higher education may be less important, in determining who has access, than financial aid and admissions policy in upper secondary education. If selection for higher or further education is on the basis of school-leaving certificates, then earnings foregone at the upper secondary level may be a far more effective financial barrier for working class pupils than fees in higher education. Yet most countries still devote far more to financial aid to students in universities or other higher education institutions, than to upper secondary pupils.

Several countries now recognise that even though their policies on secondary school selection and admission are designed to extend educational opportunities, this is not sufficient to secure equality of opportunity when there are strong financial incentives persuading pupils from low-income families to leave school at the minimum age. The importance of earnings foregone as an indirect cost of completing secondary schooling has long been recognised. Recent high rates of unemployment of young school leavers, together with increased rates of social security payments for young people, means that young people may now be discouraged from completing their secondary schooling by high

(1) For a more detailed description of student aid policies in ten OECD countries, see: M. Woodhall, Review of Student Support Schemes in Selected OECD Countries, Paris, OECD 1973.

rates of unemployment benefit or training allowances for unemployed school leavers. The need for more financial aid for upper secondary school pupils is now increasingly recognised. For example a recent study in the United Kingdom showed that the average cost of maintaining a child at school beyond the school leaving age is much higher than the costs of maintaining a university student, since financial aid for secondary school pupils is negligible, compared with grants for students in higher education. Furthermore, because subsidies at the secondary level are given mainly in the form of tax relief to parents, which varies with level of income, it actually costs low-income families more than those with high incomes to support a child in school. The author's conclusion was that, "For low and medium-income families there is a high-cost hurdle from ages 15-17, before university, with much lower costs to the families, can be reached. Relative to net income, the cost of keeping a child in education is highest for a low income family with a child at school(1)".

Since it is difficult or impossible in most countries to qualify for post-secondary education without staying on at school to gain qualifications, this means that the financial hardship associated with completing secondary school education is a real barrier to higher education for many young people.

Many countries now recognise that serious anomalies exist between the levels of different types of support for young people, and efforts are being made to co-ordinate, much more closely, the levels of financial aid for students in higher education, pupils in upper secondary schooling and training allowances and unemployment compensation for unemployed school leavers.

This means that more attention may be paid to another type of anomaly, that is the different criteria which determine eligibility for different types of financial aid. The criteria for awarding student aid are often quite different from those governing admissions policies in institutions of higher education. This means that poorer students have to satisfy two sets of criteria to gain admission to higher education, whereas those with higher levels of family income only need to satisfy the formal entry requirements. For example, in Ireland, there have been recent complaints about the fact that the entry requirement for some university courses is two honours grades in the school leaving certificate, but no grant is payable to students unless they have a minimum of four honours grades. This means that poorer students have to face a higher academic hurdle than those who can afford to pay their own fees and living expenses.

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(1) D. Piachaud, "The Economics of Educational Opportunity". Higher Education, May 1975, p. 207.

Countries differ markedly in determining the criteria for financial aid, and in the degree of selectivity. In Scandinavia and the United Kingdom, a very high proportion of students receive some award. In the United Kingdom over 90 per cent of all home students receive an award from public funds although the level of assistance depends on parental income. In Norway and Sweden the proportion of students receiving grants or loans is over 70 per cent, and eligibility depends only on the student's own level of income; parental income is ignored, in determining the amount of aid students receive. In these countries, students' ability to finance their maintenance costs is less important in determining access to higher education than in Japan, for example, where only 10 per cent of undergraduates in universities receive financial aid from government funds.

There are considerable differences in the criteria for awarding aid, and also the terms on which it is offered. In Japan and in France, grants or loans are awarded to students on the basis of ability, as well as financial need, whereas in the United States, Scandinavia or Australia, most awards are made on the basis of financial, rather than academic criteria, once students have satisfied the basic standards required for admission. Loans at subsidised rates of interest are a predominant form of aid in Canada, the United States and Scandinavia and interest-free loans combined with grants are provided in Germany, whereas in Japan all aid is in the form of interest-free loans. Australia and the United Kingdom are the only member countries to provide all aid in the form of grants, although the possibility of introducing student loans has been recently discussed in both countries.

Variations in the level or terms of student aid therefore provide governments with a mechanism for influencing student demand, whether or not they influence the price of higher education directly, by means of fees. One way for governments to attract students to particular types of higher education, or particular subjects, is by influencing admission standards, either directly or by controlling the supply of places. An alternative policy is to influence demand indirectly, through variations in student aid policy or other financial measures. There are a few cases where more favourable grants or loans are offered to students taking particular types of course, but on the whole the use of this type of financial incentive is not common.

One example of variations in the level of terms of aid, introduced by governments in order to influence students' subject or career choice, has been the attempts in the United States and some other countries to attract teachers by means of "loan forgiveness" schemes, and the use, in France of "pre-salary" payments for students intending to enter teaching or

the public service. Such schemes are now declining in popularity, mainly due to the declining demand for teachers. Most of the loan forgiveness schemes in the United States (under which a portion of loan would be "written off" for each year's service as a teacher) have now been abolished, and so has a similar scheme in the Netherlands, and a system of "bonded scholarships" in Australia. In France, the "pre-salaries" or "pre-employment contracts" offered to students intending to enter certain occupations are declining in importance. In 1960, they accounted for 20 per cent of all government aid to students, but only 12 per cent in 1974. However, this form of aid, which offers students a higher level of financial assistance in return for a commitment to work for the public sector in a particular occupation, has interesting links with admission policies. The purpose of the payments is to recruit manpower for certain occupations, rather than to increase social equality, and the basis for awarding pre-salaries is academic competition. Only students with the highest grades are awarded pre-salaries. Thus, these payments are intended to reward ability rather than promote equality of opportunity.

The general trend in OECD countries, however, is toward more egalitarian systems of student aid, which treat students equally, regardless of the subject they study, or the occupation they hope to enter. Differences in the amount students receive are related to differences in the direct costs of different courses, and to differences in their own (or their parents') financial resources. In Norway and Sweden, the amount students receive is dependent entirely on their own economic circumstances, whereas in the United Kingdom, student grants are subject to a means test based on parental income, and in Canada and the United States, grants and loans are awarded on the basis of financial need. This policy is very different from one which seeks to attract students to particular subjects or branches of higher education, by means of more favourable grants or loans, or which rewards the most academically successful students with higher than average assistance. There are not as yet, many instances of governments choosing to vary the level, or the terms, of student aid, in order to achieve objectives of admissions policy, although it has been discussed in a number of countries, particularly with respect to the problems of mature students. For example, in the United Kingdom the previous government discussed the possibility of changing the pattern of enrolment to higher education in the 1990s, by attracting more mature students: "It is unlikely that any of the developments envisaged could happen without a major lead from Government. This might mean new financial incentives to encourage take-up by people in employment (whether this was in the form of paid educational leave for continuing education or more generous grants for mature students on full-time courses at degree or equivalent levels) and perhaps also some compensation for employers(1)."

(1) Department of Education and Science, Higher Education into the 1990s. London, 1978, p. 9.

In Sweden changes in admissions policy to attract mature students to higher education have been accompanied by more generous financial aid for adults, but in general there are few instances of clear co-ordination between the two types of government policy, and it is usually difficult to discern any obvious pattern between policies on student aid and admissions policies. In fact there frequently appear to be inconsistencies in the criteria used for awarding student aid and selecting students for higher education.

In some cases, if selection takes place relatively late, and a large number of secondary school pupils gain leaving certificates, student aid is awarded mainly on the basis of academic criteria. For example, in Japan the proportion of school leavers gaining a leaving certificate is high, and university selection is based on specially administered tests, and student loans are also awarded on a competitive basis. In Scandinavian countries, on the other hand, matriculation was traditionally taken by a smaller proportion of secondary school pupils, and success at this stage virtually entitled pupils to a place in higher education (except for the highly competitive "closed" faculties, such as medicine). Student aid, in these countries, however, is awarded on the basis of need, rather than academic attainments; grants combined with loans are available to all students, simply on the basis of their own level of income.

Several countries, however, have both selective and non-selective institutions, and in some cases different types of student aid may employ different criteria for selection. For example, in the United Kingdom a distinction is drawn between "mandatory awards" for students taking first degree or similar courses, and "discretionary awards" for students taking certain lower level courses, or who wish to get a second qualification. Where such distinctions exist between two different categories of aid, this may have repercussions for admission policies, since it may be in the interests of institutions to "upgrade" courses, by raising entry standards, in the hope of qualifying for a superior grant status. Alternatively, students may have to satisfy more stringent requirements in the case of "discretionary" awards, than "mandatory" grants.

In the case of student grants or loans, aid is provided directly, in the form of cash, or in some cases, interest subsidies for graduates who are repaying their loans. Governments also provide indirect subsidies by means of cheap food, accommodation or travel facilities for students. In some countries, this is a significant form of aid; for instance, in Germany, Norway and Sweden, such indirect aid amounts to between 13 and 20 per cent of expenditure on direct aid, but in Australia and Japan, the proportion is only 5 or 7 per cent. The proportion of expenditure devoted to food and accommodation subsidies and tax relief for families of students, is much higher in France than in other countries.

An interesting attempt to analyse the implications of this on university admissions and failure rates(1) shows that an important difference between the two types of subsidy in France is that the award or continuation of grants, loans or pre-employment contracts is dependent on students' academic performance, whereas food or subsidies and tax relief for students' families, are enjoyed by all students, and housing subsidies only by those who live in student accommodation. In addition, the various types of subsidy have different effects on how students allocate their time between study, leisure or part-time employment, which in turn help to determine the likelihood of passing or failing final examinations. Thus, the way in which the government chooses to allocate the student aid budget may have important implications for the proportion of students who pass their final examinations. This is another example of how student aid policy can have important indirect effects on admission and selection policies, by influencing the success or failure rate at the end of higher education. Once again, we see that governments can regulate or manipulate the price of education by a variety of means, both direct and indirect and this raises the important question of whether the objectives of student aid and financing policies are consistent with other objectives of government policy, including policies on admissions and on the supply of places.

The Objectives of Government Policies on Admission and Finance of Higher Education

Government policies on higher education have a variety of social, political and economic objectives, including both efficiency and equity. Educational policies, similarly, are concerned with a wide variety of objectives, including the provision of sufficient places to satisfy demand for skilled manpower, ensuring quality and diversity of institutions, promoting equality of opportunity and other broad social objectives. Choices between different selection and admission procedures, and different methods of financing higher education must take into account all these objectives, and the priority given to economic, social or educational objectives varies between different member countries. For example, an American writer on admissions policies commented:

(1) B. Lemenicier, "Direct and Indirect effects of In-Cash versus In-Kind Payments on the Labelling of Individuals: the French higher education case", Paris: CREDOC, 1976. This is an English summary of part of more detailed study, in French: Lemenicier, Levy-Garboua, Millot and Orivel, L'aide aux etudiants en France: faits et critique. Paris, CNRS, 1975.

"While all admissions offices are concerned with enrolments, public relations and admissions policy, these are not the primary activities that define the tone of an office. These major jobs are recruiting, selecting, counselling, and the management of student records and data. All campuses are concerned with these core tasks, but most admissions offices choose only one or two as a dominant activity(1)." In other words, at the same time, in different institutions, the term "admissions policy" may involve either keeping students out, or attracting more students, it may mean influencing student preferences or responding to student choice. Similarly governments, when developing admissions policies may be concerned with controlling excess demand, or with stimulating demand from new groups.

In view of this wide range of objectives, it is hardly surprising that admissions policies and financing mechanisms often do not seem well co-ordinated. Several examples of this lack of co-ordination have already been noted, such as the lack of consistency in some countries between entry requirements and student aid criteria. Several countries have recently changed admission procedures in order to encourage participation of adults by relaxing entry requirements, or other means. Student aid rules however are often framed to suit the traditional student, entering straight from school. Levels of aid, terms of repayment of loans and even age limits for eligibility, may be inappropriate for adult students. In most countries, changes in student aid have lagged behind changes in admission policies for adults. Similarly, the common trend in Europe in the past few years to reduce selectivity in secondary education has not been matched by increases in financial aid to secondary school pupils, to prevent drop out of low-income students. The result is that indirect financial barriers may still be very important, at the secondary stage, partly nullifying the effects of attempts to "democratise" post-secondary education. Changes in admissions policies have also been introduced in some countries to break down barriers between different types of institution, yet at the same time student aid levels often differentiate between these institutions in such a way as to reinforce the barriers.

Other examples exist of conflict between financial or student aid policies and the stated objectives of other government policies. It has been suggested that in France, although a policy of "equal access" to higher education has been proclaimed, "yet highly selective secondary schooling and student aid policies in fact limit access more than in other countries. Although in the words of the persons responsible for French higher education the aim is mass education, the facts show an orientation towards elitism(2)".

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(1) R. Scott, "The Opening of Admissions: Implications for Policies and Procedures", paper presented at Third International Conference on Higher Education, 1975, (Lancaster).

(2) F. Orivel, "Facts and Words: The Ambiguities of the French Higher Education System". Paper presented at the Third International Conference on Higher Education at the University of Lancaster, September, 1975.

All these examples of lack of consistency in financial and selection policies reflect the fact that the policies are designed to satisfy the often conflicting objectives of efficiency and equity. For example, selection procedures for "numerus clausus" faculties may, on grounds of efficiency, aim to select the most able candidates, regardless of income, whereas on grounds of equity student aid is often geared to low-income students, regardless of ability (provided that some minimum level of qualification is reached by all recipients). Changes in admission policies are advocated in some countries, in order to increase diversification of institutions and "open access" to higher education, on the grounds that this would lead to a more equitable distribution of opportunities. At the same time, it is sometimes argued that it would be more efficient to administer student aid more selectively(1), and that loan schemes should seek to reduce default rates by choosing loan recipients more selectively(2).

Even if admission and finance policies attempt to satisfy the same objectives, there is often disagreement about what the objectives mean. For example, does equity require that access be made more equal, or that the distribution of costs should be more closely related to benefits? Should policies be more concerned about the distribution of education between different social groups or about the distribution of costs and benefits between those who benefit directly from higher education and those who do not?

Finally, there is the question of how governments resolve the trade-off between making student aid programmes more generous, in order to remove financial burdens and encourage participation in higher education, and reducing levels of expenditure, in order to satisfy economic policy goals. This is a major issue now in a number of different countries.

There are many signs that governments are becoming more aware of the way financing policies and admissions policies must be viewed together. This means that the interaction of different government policies and mechanisms are likely to be more carefully analysed in future, to see whether they are consistent. If direct and indirect methods of influencing and regulating student demand come to be seen as complementary mechanisms, more

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(1) For example, see the argument of R. Hartman, Credit for College: Public Policy for Student Loans. New York, McGraw Hill, 1971, that student loan subsidies are inefficiently distributed at present.

(2) The problem of identifying students most likely to become defaulters is discussed in E.G. West, Student Loans: A Reappraisal, Toronto: Ontario Economic Council Working Paper, 4.75.

attention will have to be paid to the incentive or disincentive effects of different methods of financing and also different methods of selecting students. Questions such as whether government subsidies should be given to students or to institutions, whether students should receive grants or loans, whether fee and fee differentials should be abolished or increased, are all concerned with the price of education. Similarly, decisions about selection procedures, the use of quotas in determining admission or the determination of pass rates in final examinations, also influence the price of education for the individual.

Governments can influence the price of education by a wide variety of means - direct and indirect. Decisions about the supply of places, the allocation of resources between different levels of education, the choice between different methods of finance and student aid, or between different methods of selection, all help to determine the price of education, for the individual student, and therefore, the effects of all these decisions need to be analysed together, to see how they interact to determine demand for higher education. As one recent American study concluded: "Policy makers must consider the inadvertent as well as the intended consequences of policy changes affecting higher education(1)".

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(1) S. Nelson, "Financial Trends and Issues in D. Breneman and C. Finn, op. cit. p. 105.