

DOCUMENT RESUME

ED 268 909

HE 019 276

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TITLE Recent Trends in Subsidies to Higher Education in Europe.
INSTITUTION Educational Policy Research Center for Higher Education and Society, Washington, D.C.; Froomkin (Joseph) Inc., Washington, D.C.
SPONS AGENCY Department of Health, Education, and Welfare, Washington, D.C.
PUB DATE Dec 77
CONTRACT 300-76-0026
NOTE 44p.; Document contains light type
PUB TYPE Reports - Descriptive (141) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 plus Postage.
DESCRIPTORS Access to Education; Budgeting; Comparative Analysis; *Federal Aid; Fees; *Financial Support; *Government School Relationship; Grants; *Higher Education; Loan Repayment; Low Income Groups; *Public Policy; School Taxes; *Student Financial Aid; Student Loan Programs; Tax Credits; Tuition

IDENTIFIERS *Europe; France; Netherlands; Sweden; United Kingdom; West Germany

ABSTRACT

Patterns of government subsidies to higher education in five European countries are considered in order to provide a comparative perspective for U.S. policy-makers. Attention is focused on patterns of subsidizing both institutions and students for the five countries: France, West Germany, the Netherlands, Sweden, and the United Kingdom. The subsidies are assessed in light of stated government objectives, and especially the objectives of efficiency and equity. Profiles of the countries includes information on: financing public and private institutions, free education vs. tuition and fee charges, organizational body responsible for budget development; sources of university income; types of student aid and their distribution; maximum award per student, December 1974; tax relief or family allowances for students' parents; indirect student aid (housing, food subsidies, health); interest rate on loans; and loan repayment. Implications of alternative patterns of subsidy are analyzed in depth, with attention to the optimum levels of subsidy, the case for aiding students by means of grants, whether the subsidy system creates equality of educational opportunity, and how costs of education should be shared between high and low income taxpayers. An ideal student aid package is proposed. (SW)

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December 1977

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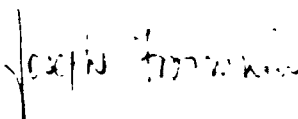
Contract No. 300-76-0026

December 1977

FOREWORD

Last March, I asked Professor Mark Blaug of the University of London to prepare a paper dealing with student assistance in major European countries. We believed that such a paper would serve a useful purpose by bringing to the attention of U. S. policy makers different foreign approaches to student support.

The paper which follows documents the diversity of methods to facilitating access to higher education in Europe. Even more importantly, it critiques these approaches. We feel that this essay should be required reading for all those likely to participate in the analysis leading to the re-authorization of the Higher Education Act.


Joseph Froomkin

RECENT TRENDS IN SUBSIDIES TO
HIGHER EDUCATION IN EUROPE

by

Mark Blyth and Maureen Woodhall¹
University of London Institute of Education

Throughout Europe, higher education is heavily subsidised by the state. The direct costs of tuition are subsidised by grants to colleges and universities so as to allow fees to be reduced to minimal levels, and the indirect costs of tuition (borne by students in the form of loss of earnings) are subsidised by personal grants or loans. The alternative policy of allocating all subsidies to individual students, while encouraging institutions to charge fees which cover all or most of the costs of tuition, has not been attempted in any European country, although it has sometimes been advocated (e.g. Crew and Young, 1977). While the general pattern of subsidies to higher education is the same throughout Europe, however, there are significant differences between countries.

In some countries, all colleges and universities are administered as well as financed by government; in others, there are private as well as public institutions. Most European countries provide aid to students by means of a mixture of grants and loans but the mix varies considerably from country to country: at one extreme is the U.K. where students receive only grants, and at the other is France where the provision of subsidised meals and subsidised accommodation, as well as tax relief and allowances paid to students' families, constitute a far greater proportion of students' aid than grants or loans.

The purpose of this paper is, first of all, to compare and contrast patterns of government subsidies to higher education in five European countries: France, Germany, the Netherlands, Sweden and the UK, distinguishing between aid to institutions and aid to students. Our second purpose is to assess these subsidies in

1. The research for this paper was sponsored by the United States Education Policy Research Center for Higher Education and Society under HEW Contract No. 300-70-0026. The views expressed are not necessarily those of the Center. Our thanks are due to J. Froedkin for valuable comments on an earlier draft.

the light of the stated objectives of governments, having particular reference to the objectives of efficiency and equity. For that reason we pay special attention to recent changes in the pattern of subsidies to higher education in the five countries under examination.

I. Subsidies to Institutions

All European governments accept responsibility for providing buildings, as well as finance for higher education. But different historical circumstances explain why in some cases, such as Sweden, virtually all schools and universities are owned and administered by the state, whereas in other countries, notably the Netherlands, public and private institutions exist side by side. Similarly, in France and Sweden the central government has sole responsibility for higher education, whereas in the UK this responsibility is shared between central and local authorities, and in Germany it is shared between the federal and state governments.

The other difference between countries lies in their treatment of different types of institution. Higher education in the UK is characterised by the "binary system" under which degree-level courses are provided in both legally autonomous universities and in so-called "public" institutions, such as polytechnics and colleges of higher education, which are owned and administered by Local Education Authorities. The two types of institution are financed in different ways, even though both are largely dependent on public funds. However, the policy in most other European countries is to finance all institutions of higher education in similar or identical ways. Thus, the recent reform of higher education in Sweden, which was implemented in July 1977, is intended to unite all forms of postsecondary education into a unified framework, administered and financed by means of a single budget covering universities, teacher training colleges, and higher vocational schools.

There are certain differences between countries in policies regarding tuition fees but, in general, fees play an insignificant part in the finance of higher education throughout Europe. This is just as true in countries where there are

private institutions as in those where all universities or colleges are administered by the state. In France and Germany, only 4 per cent of students enrolled in higher education in 1970 were in private institutions, but in the Netherlands the proportion was as high as 47 per cent (National Center for Education Statistics, 1976, p. 264). But this does not mean that government subsidies to institutions are any less significant in the Netherlands than in France or Germany. In fact, the Dutch University Education Act stipulates that private denominational and public non-denominational institutions should be financed and administered according to common rules. Thus, the distinction between public and private universities in Europe does not have the same meaning as in the USA, where sources of finance for institutions depend critically on whether they are publicly or privately owned.

Some European countries have a long tradition of free education and the promise of free education at all levels, including higher education, is an integral feature of the national constitution. Even when fees are charged, as they are in a few countries, they are almost always nominal. There are no fees for any form of higher education in Germany and Sweden. In France, however, students must pay minimal registration fees, and in the Netherlands, where public and private universities and colleges have always charged a low fee, there is the intention of abolishing fees altogether in the near future.

The one exception to the European trend towards the abolition of tuition fees is the UK where fees have recently been sharply increased, accompanied by the introduction of higher fees for postgraduates than for undergraduates. Nevertheless, the large majority of British students have their fees paid in full by Local Education Authorities (who are reimbursed in turn by central government) so that the recent increase in fees does not represent a reduction in government subsidies except to a minority of students who are for one reason or another not eligible for student grants (mainly overseas students and postgraduates with poor first degrees).

The overwhelming pattern in Europe, therefore, is to meet the direct costs of higher education either wholly or in large part by means of institutional grants from public funds. We turn now to a more detailed account of the method of aiding institutions in each country.

I.1 France

Most of the finance for French higher education comes directly from central government. Until 1974, the Ministry of Education was solely responsible for higher education, although certain institutions received subsidies from other Ministries, notably Defence and Agriculture. In 1974 an independent department with full Ministerial power was created, the Secretariat of State for Universities, which took over responsibility, not only for the 75 universities of France, but also for University Institutes of Technology, some of the grandes écoles, and all of the national research councils, such as the Centre national de recherche scientifique (French Embassy, London, 1976).

Each year a certain sum is allotted in the government budget for higher education, and the Secretariat of State for Universities, in association with such bodies as the Conseil national de l'enseignement supérieur et de la recherche, then apportions a sum to each university. It is then left to each university council to draw up a detailed budget for the coming year. These university councils typically consist of elected representatives of the teaching and administrative staff as well as the students of a university. The university budget is then submitted to the Secretariat and, once it has been approved, no expenditure is permitted which falls outside the budget. Thus, university expenditure in France is subject to more detailed central control than is the case in other countries in Europe.

The French university budget covers all current expenditure except teachers' salaries, which are paid directly by central government; all capital expenditure in higher education is also paid directly by central government. Most other institutions of higher education in France also receive grants through the

Secretariat but certain other Ministries still provide subsidies of their own; for example, the Ministry of Agriculture subsidises some of the grandes écoles and private agricultural colleges. A few grandes écoles also receive financial support from Chambers of Commerce, religious organisations and business firms but very little information is available on these private sources of finance.

Despite the existence of certain private institutions of higher education, such as the Catholic University, some of the grandes écoles and a few private technical colleges, the bulk of all expenditure on French higher education is financed by central government (see Table 1).

TABLE 1: Sources of Finance for Current and Capital Expenditure on Higher Education, France, 1975

	Million francs	%
State subsidies	4,977	96.2
Local authorities	147	2.8
Students' fees	50	1.0
Total	5,174	100.0

Source: Orivel (1977)

Note: the figures exclude private contributions, which are believed to be small.

I.2 Germany

The German constitution originally placed all responsibility for financing and administering higher education in the hands of the eleven states, or Länder, that together form the Federal Republic. In 1969, however, the constitution was amended to make the financing of university buildings a joint task of the Federal government and the Länder, and in 1970 this amendment was extended to include all tertiary education institutions (see OECD, 1972). In addition, the Federal government introduced a comprehensive new student aid scheme in 1971 (of which more below). The past few years in Germany have, therefore, seen a radical extension of central government involvement in higher education. Nevertheless,

the bulk of all expenditure on German higher education still derives from the state governments rather than the central government. In 1975, for example, the Länder contributed 90 per cent of all expenditure on higher education (including student aid) with the Federal government contributing only 10 per cent. Municipal governments, which provide a large share of the public funds for compulsory schooling, do not contribute to the finance of higher education in Germany. Nor do students make any direct financial contribution since all tuition fees have now been abolished.

All higher education in Germany is provided in state institutions and traditionally students did pay low fees which went to supplement the salary of the professor in charge of their teaching (the eighteenth century Scots method of paying teachers). This system was abolished during the 1960's and professorial salaries were increased concomitantly to compensate professors for their loss of income. In 1970, examination fees, which were the last remaining fees charged in German higher education, were also abolished.

There have been some suggestions in Germany that fees should be reintroduced to supplement teachers' salaries (Roeloffs, 1976), but there are no indications that any of the Länder are willing to reconsider their policy of providing free tuition at all levels of education, including higher education.

1.3 Netherlands

All public and private universities in Holland are governed by the University Education Act of 1961 and the University Administration Reform Act of 1970. Both these Acts declare that public and private universities should be financed in the same way. At present, all universities are fully financed by the Dutch government, although students pay a small tuition fee of Fl. 600 (about \$80) a year. Higher vocational schools are financed in the same way, the only difference being that fees in these schools are related to parental income up to a maximum of Fl. 600 a year, the level of university fees, but they are administered in ways that are quite different from those of universities.

However, the Dutch government has announced its intention of abolishing the division that now exists between universities and other institutions of higher education, so as ultimately to create a unified system of higher education. A recent government memorandum on the Contours of a Future Education System in the Netherlands called for a halt to university expansion and a reduction in university costs, principally by means of the introduction of shorter university courses (Government of the Netherlands, 1976). At present, Dutch university courses last between six to nine years, in part because of the tradition of working while studying part-time, compared with three to four years at higher vocational schools. Universities have been asked to submit proposals for new four-year degree courses but this has led to bitter opposition with all universities attempting to take advantage of a provision which allows five-year courses "in exceptional circumstances" (Council of Europe, 1977). Attempts to reform higher education in the Netherlands are, therefore, running into considerable difficulties but neither the reforms nor the resistance to it is significantly connected with the way institutions are financed. The only change in financing procedures proposed by the government is a change in the student aid system, accompanied by the abolition of tuition fees: we return to this issue below.

I.4 Sweden

All higher education in Sweden is financed by the state and all institutions of higher education are owned and administered by the state. The universities of Stockholm and Gothenburg, which were established and financed privately in the nineteenth century, gradually came to depend more and more on stipends from government, and hence were nationalised in the 1950's. Since then higher education has been a monopoly of the state and no tuition fees have been charged at Swedish universities or other higher education institutions (Swedish Institute, 1975).

Recent educational reforms, designed to unify all forms of postsecondary education in Sweden along the lines of the recommendations of the U68 Commission, will affect the way institutions are administered but will not radically change

their methods of finance. Institutions will continue to receive all their income from government grants but there will be changes in the way in which these funds are allocated. One of the objectives of the reforms is to decentralise decision-making. A new National Board of Universities and Colleges was created in 1976 to take charge of general planning and co-ordination of all branches of postsecondary education, including the submission of budget proposals for higher education (National Board of Universities and Colleges, 1976).

The budget for 1977-78, for example, distinguishes between allocations for (1) research, (2) basic general courses of higher education, and (3) local and special courses of education and training. Funds for research will be allocated on the basis of faculties and subject areas, corresponding to traditional academic disciplines, but they will no longer be given exclusively to universities - all institutions of higher education are expected to engage in research. Similarly, funds for basic general courses will no longer be allocated in terms of university faculties or subject areas but in terms of five vocational areas. Finally, funds for local and special courses will be distributed between six regional boards, reflecting the recent division of Sweden into six higher education regions. Membership of the regional boards includes representatives of teachers, students, and the "public interest", including local businesses, trade unions, and political parties (Duckenfield, 1977).

It is too early to say how this new form of organisation will affect the distribution of funds in practice. What seems clear is that the autonomy of university departments or faculties in Sweden will be lessened, with funds being distributed on the basis of vocational criteria and local labour market conditions rather than individual student demand for traditional academic disciplines.

The question of how much student demand should be allowed to influence planning decisions has caused bitter controversy in Sweden. The old system of higher education in Sweden included "closed" faculties where the number of students admitted each year was strictly limited, such as medicine and engineering, and "open" faculties where there were no restrictions on the number of students admitted.

The original Parliamentary proposals, endorsing the recommendations of the UES Commission, would have extended the policy of restricted admissions to all areas of higher education, so as to impose admission ceilings on such "open faculties" as humanities, social sciences and theology. After an acrid debate, a compromise was reached under which the old distinction between "closed" and "open" courses is maintained. However, institutional revenue will no longer be automatically linked with student numbers as it was in the past. Whether this will mean that admissions to higher education will in fact be restricted in the future depends on whether total funds will be expected to grow and on how these total funds will be allocated by the National Board and regional boards. The new organisational structure of higher education may make it easier for the Swedish government to impose numerical ceilings by means of financial controls rather than by decree creating more "closed" faculties.

I.5 United Kingdom

The finance of higher education in the UK differs from the pattern in other European countries in two important respects: (1) the division of expenditure between central and local government, and (2) the contribution of fees to total university income. Whereas state subsidies are provided almost wholly by the central government in France, and predominantly by the Länder in Germany, the burden of financing higher education in the UK is shared between central and local government. At the same time, fees account for a larger share of university income than in any of the countries we have so far considered.

There are two sectors of higher education in the UK, as there are in several other countries, but the two sectors are financed quite differently. British universities are financed from central government revenue through the University Grants Committee (UGC). The UGC is often described as a "buffer" between the central government and the universities; it is responsible in the first instance to the Department of Education and Science, and its function is to advise the Department on university matters and to distribute to universities the current and

capital grants allocated by the government. In the past, the grants for current expenditure were announced five years ahead but this system of quinquennial grants has been temporarily suspended due to recent public expenditure cuts. At present, British universities receive annual allocations for both current and capital expenditure on the basis of their submissions to the UGC. Once the current grant is awarded, universities are free to allocate it between departments or faculties as they like; however, they are expected to take account of the "Memorandum of Guidance" issued by the UGC, which consists largely of targets for student numbers and, in particular, the balance of numbers between "arts" and "science" students.

British universities are jealous of their independence and proud of their freedom to allocate funds without direct government interference. There is much disagreement, however about the extent of the freedom in practice. Some critics argue that the UGC now acts like a traditional department of government rather than a buffer (Pratt, 1975; Crowther Hunt, 1976), and others contend that the present method of channelling government subsidies through the UGC leads to inefficiency, with each university trying to maximise its grant rather than to minimise costs and to maximise student output (Prest, 1966; Verry, 1977a). The question of how far British universities are really free from government control has been brought sharply to the fore by the government's recent decision to increase student fees. In 1973/4, fee income amounted to only 4 per cent of all British university income (see Table 2), having fallen from over 30 per cent in 1939, to 15 per cent in 1951, to the present figure of 4 per cent. A new structure of fees was proposed in 1977 which increased fees for undergraduates from £182 to £650 a year, and for postgraduates from £182 to £750 a year; overseas students, who previously paid more than home students (£416 instead of £182), will now pay the same fees as home students, that is, £650 or £750. British universities were generally opposed to such large fee increases but since most home students have their fees paid in full by Local Authorities, the students themselves accepted the new fees with little more than a protest at the unfair treatment of foreign students. Under the new arrangements, fee income will account for about 20 per cent of all university income

but most of this will still come from public funds rather than from students or their parents.

TABLE 2: Sources of University Income, UK, 1973/74

University Grants Committee	£'000	Per cent
Non-recurrent grant for building	51,536	8.7
Furniture and equipment grants	38,926	6.6
Recurrent grant	349,734	58.5
Rates grant	13,094	2.2
		<hr/> 76.0 <hr/>
Other income mainly from public sources		
Research grants (from research councils but also private foundations, etc.)	52,626	8.8
Fee income (mainly paid by LEAs or research councils)	23,437	3.9
Other income		
Payments for services rendered	13,532	2.3
Receipts from catering and residential services	39,807	6.7
Other general income (including trust funds)	15,914	2.7
	<hr/> 598,606 <hr/>	<hr/> 100.0 <hr/>

Source: Department of Education and Science (1976a)

Other public institutions of higher education in the UK, such as polytechnics and colleges of higher education, are administered by Local Education Authorities and receive grants directly from them. But the Local Authorities have three sources of revenue: a property tax known as "rates", fees and charges for certain services, and various grants from central government. The most important of the central government grants is the "rate support grant", being a block grant covering all local government expenditure. One of the purposes of the rate support grant is to equalise the revenue available to different local authorities, so that the actual amount of grant paid by the central government varies from one authority to another. In 1976-77, the average proportion of local authority expenditure

covered by the rate support grants was over 60 per cent and education accounts for more than a third of the current expenditure of local authorities. It is clear, therefore, that a large proportion of the funds of the public, non-university sector of higher education in the UK comes indirectly from central government, even though the institutions in question are owned and administered by local authorities. It is impossible to say exactly how large the proportion is since the rate support grant is a general grant, covering all items of local authority expenditure, and the allocation of resources between different services will vary from one authority to another. Moreover, since higher education is assumed to be a service which brings national rather than local benefits, polytechnics and colleges of education are financed by means of a common fund, known as the "pool", to which all local authorities contribute.

When all these complications of British local government finance are taken into account, it appears that well over half of all expenditure on higher education comes from central government revenue, either directly or indirectly. However, the fact that different types of institution receive government grants from different sources means that they are subject to different types of financial control. Local authority institutions must satisfy more detailed regulations than universities. This has led to suggestions that the scope of the UGC should be extended, so that it covers all forms of higher education, but this raises complex questions about whether different methods of finance necessarily lead to differences in the degree of government control. At present, the whole question of the management of higher education in Britain is being studied by a government committee, the Oakes Committee, which is likely to propose changes in the mechanisms for financing non-university institutions in the future.

II. Subsidies to Students

All European governments subsidise students in higher education but there are significant differences between countries in the magnitude of the subsidy and also

in the type of aid provided.¹ France, Germany, Sweden and the Netherlands all make some use of loans but only in combination with grants or scholarships. The UK is unusual in providing only grants and successive British governments have declared themselves firmly opposed to the idea of student loans. Most countries apply some form of "means test", so that the amount of financial aid awarded to a student depends upon the level of parental income. The assumption is that parents should contribute towards their children's living expenses if they can afford to do so. In return, parents are eligible for tax relief, and in some cases to family allowances, while their children are in full-time education. The one exception to this pattern is Sweden, where students are entitled to study assistance, regardless of the income of their parents or the income of their husband or wife; the only means test which is applied relates to the student's own income. On the other hand, Swedish parents of students in higher education are not eligible for tax relief. The Swedish system is based on the legal premise that young people are financially independent from the age of 19, whereas in other countries the age of financial independence that is legally recognised is 25 or even 27, as in Germany.

Apart from grants or loans to students, and income tax relief for the parents of students, most governments provide additional subsidies for students in the form of low-cost accommodation, travel facilities, free medical care or health insurance, and in some cases subsidised food and books. In Sweden, such indirect subsidies run to about 12 per cent of total government expenditure on direct student aid, and in Britain and Germany the proportion is 18 to 20 per cent. France is unusual in providing a much higher proportion of total student aid in this form.

Most of the countries have recently introduced, or are planning to introduce, fairly radical changes in their systems of student aid. In Germany, the present system of grants and loans dates from 1971 and has recently been subject to a number of modifications; in the Netherlands, the government proposed a new system

1. For a more detailed examination of student aid policies in Europe, as well as in Australia, Canada, Japan and the USA, see Woodhall (1977).

of student aid in 1974 and work is still going on to finalise the details of the new system. In Sweden, the system of student aid was extended in 1974 and a new form of aid for adult students was introduced, including financial assistance for adults studying part-time. Nevertheless, the Swedish government felt that the whole system of student aid should be re-examined in the light of changing enrolment trends, particularly the high proportion of adults and part-time students who are now taking some form of higher education. Therefore, a Swedish government committee was appointed in 1976 to review the entire system of financial aid for pupils and students in secondary and higher education, and changes may well be introduced in the current parliamentary session as a result of this review.

Thus, the pattern of subsidies for students in Europe is changing and, indeed, European governments appear more ready to introduce changes in student aid schemes than to change the methods of financing institutions. For instance, Germany has recently re-introduced student loans after experimenting for some years with a system based entirely on grants, and Sweden has abolished the means test which used to be applied to the income of a student's husband or wife, and has also introduced interest charges for student loans in place of the former system under which graduates repaid their loans at zero interest in terms of constant purchasing power (which amounts to an interest charge equal to the rate of price change). Similarly, the Dutch government plans shortly to co-ordinate all forms of student aid, including tax relief, interest subsidies on loans and grants, into a single system of grants and loans, which will be available to all students in postsecondary education.

The remainder of this section gives a more detailed picture of the system of student aid in each country and the criticisms that have been made of existing systems. Table 7 at the end of this section provides a brief, oversimplified summary of the main features of student aid in the five countries.

II.1 France

France, as we have noted, is unusual among European countries in providing a high proportion of subsidies in the form of low-cost housing and meals for students,

as well as family allowances and tax relief for their parents. The amount made available directly to students as scholarships, grants and loans is very limited, and only about 15 per cent of students benefit from such schemes. Another unusual feature of the French system is the payment of salaries for "pre-employment contracts" to certain students who intend to become teachers or public servants. This form of aid is highly selective: it is offered as a reward for ability and as an inducement to the most able students to enter particular occupations. In other words, the objective of the scheme is to recruit manpower which is thought to be in scarce supply rather than to assist low-income students. Those who receive such payments undertake to work in the public sector for a certain period; if they later break this undertaking, the money must be repaid. Pre-employment contracts are declining in importance: in 1960 they accounted for 20 per cent of all governmental aid to students, but in 1974 the proportion was only 12 per cent (Orivel, 1975).

TABLE 3: Distribution of Aid to Students, France, 1974
(percentages)

Scholarships, loans and grants	46
Pre-employment contracts	12
Food and housing subsidies	35
Medical subsidies	7
Total	100

Source: Orivel (1975)

Table 3 shows that scholarships and grants accounted for less than half of the total aid to French students. A small number of short-term loans are also available at 5 per cent interest. But these direct forms of aid amount to very little more than the government's expenditure on subsidised housing, subsidised catering, and free medical facilities for students under the social security system. Even more important are the various types of aid to students' families. When these are added to the aid provided to students, it turns out that tax relief for

students' parents plus family allowances for children in full-time education exceed the financial assistance given directly to students (see Table 4).

TABLE 4: Distribution of Total Student Aid, France, 1974
(percentages)

Scholarships, loans and grants	25
Other subsidies to students	27
Tax relief for parents	32
Family allowances	18
Total	100

Source. Orivel (1975)

Since such a high proportion of aid goes in the form of tax relief to students' parents, it would appear that the pattern of aid to students in France is biased in favour of high income families. Although scholarships are means-tested and are awarded only to students from low income families, pre-employment contracts are awarded on the basis of academic merit rather than financial need, and subsidised housing and food benefits only those students who choose to live in the cités universitaires rather than at home. Tax relief, on the other hand, is available to all but its value necessarily increases as parental income increases. The result of this mixture of selective and universal subsidies makes it difficult to convincingly demonstrate the true incidence of the benefits from student aid in France, but on balance it must surely be the richer rather than the poorer students who benefit most. At any rate, one French study of the equity implications of French educational expenditure concludes that student aid has had little tendency to equalise access to higher education (Levy-Garboua, 1975: see also Kingat, 1977, chapter 3).

In the past few years, the amount of aid in the form of scholarships and loans has not kept pace with rising student numbers and rising prices. The result is that state aid per student has been declining in real terms. Orivel (1975) estimates that it fell from Frs. 2,019 in 1965 to Frs. 1,309 in 1975. This means that the private costs of higher education in France have been rising. In 1975,

total state aid for students in higher education amounted to about Frs. 2,500 million, and it was estimated that student expenditure was about Frs. 10,000 million, so that state subsidies covered only a quarter of students' actual money outlays. In other words, the policy of free tuition by no means implies that higher education is free to the individual student or his family. In addition, one French estimate for 1970 suggested that earnings forgone represent 70 per cent of the total resources cost of higher education in France and direct French subsidies to students cover only 12 per cent of these earnings forgone (Orivel, 1975; Levy-Garboua, 1977). In fact, Orivel estimates that if earnings forgone are taken into account, students and their families contribute about half the total resource costs of higher education in France.

II.2 Germany

Financial aid to students in Germany, like financial aid for university building, was designated in 1969 as the joint task of both the Federal and state governments. The Federal government passed a new Educational Support Bill (BAföG) in 1971, which set up a new system of grants for students in higher education to replace the old system of loans known as the Hornaf-Modell (see Roeloffs, 1976). For the first few years of its operation, the BAföG scheme relied solely on grants but in 1974 a loan element was introduced. A student who is entitled to the maximum support now receives about 20 per cent of aid in the form of a long term interest-free loan, with the remainder of aid being given in the form of a grant. All student aid is means-tested, however, and if a student receives less than the maximum award, the loan may account for more than 20 per cent of the total (all students repay the same amount, being about DM 80 a month). This scheme is administered by the Länder but it is financed jointly by the Federal government and the Länder, with 65 per cent of the expenditure coming from the center and the rest from state governments.

To repeat: all German student aid is awarded on the basis of family income and in 1974-75, 45 per cent of all students in higher education received awards.

A student is not regarded as financially independent until the age of 27 but when the scheme was first introduced, students were permitted to take out low-interest loans if their parents refused to give them financial support. However, this option was eliminated in 1976 and parents can now be taken to court if they refuse to support their children when the authorities judge that they can afford to do so. In order to simplify the job of calculating a student's entitlement to a grant or loan, the amount of support due to a student is calculated on the basis of his parents' income two years earlier; as a result, income tax assessments can be used as a basis for the calculation. This has caused considerable problems since steep rates of inflation, coupled with fluctuating incomes and unemployment, in recent years have meant that some families have lower current real incomes than they had two years ago. It may also mean that a student who is half-way through his course may suddenly find the level of his grant cut simply because his father had a pay rise two years ago. In exceptional cases, a student's entitlement may be assessed on the basis of his parents' current income and the past few years have seen a considerable increase in the number of such applications.

After graduation, the student begins to repay his loan at the rate of DM 80 a month, but those with low incomes may pay less and those who are unemployed, voluntarily or involuntarily, are excused repayment. Thus, there is no negative-duty problem for married women who do not work. Some graduates repay their interest-free loans in about five years but those with low incomes, or those who received all their support in the form of a loan (for instance, if they changed courses or are taking a second qualification), may take up to 20 years.

When the loan element was introduced into the system in 1974, the bitter pill was sweetened by an increase in the level of support available. The original BAföG bill of 1971 stipulated that levels of support would be adjusted every two years, so that another increase was due in 1976. However, this increase was postponed as part of the Federal government's measures to reduce public expenditure.

II.3 Netherlands

The existing system of student aid in Holland includes grants, low interest loans, subsidised housing and meals, and tax relief and family allowances for students' parents (see Table 5). Students from low-income families receive aid in the form of grants and interest-free loans in the proportions 3:2. All aid is means tested and students with higher family incomes receive no aid at all except for tax relief and family allowances given to their parents. This system has been criticised as inequitable because tax relief is worth more to families with higher incomes, while students from low income families are driven to incur debts. The Dutch government has therefore proposed a new system of student aid, which will abolish tax relief and family allowances, instead providing all students with a basic grant towards living expenses. There will also be means-tested, supplementary grants for students from low income families and, in addition, any student may choose to take a government-guaranteed loan from a commercial bank at subsidised interest rates (in 1976, the rate of interest on student loans backed by a government guarantee was 8.75 per cent).

TABLE 5: Distribution of Total Student Aid, the Netherlands, 1974-75 (percentages)

Grants to students	27
Interest subsidy for student loans	12
Tax relief	8
Family allowances	53
Total	100

Source: Council of Europe (1976)

The Dutch government's proposal for a new system of student aid is not expected to involve any extra expenditure. In 1974-75, revenue from fees amounted to less than 5 per cent of total expenditure on student aid. Under the new system, all tuition fees will be abolished but the lost revenue will be deducted from the total student aid budget, so that, in the words of a Ministry of Education

information sheet, "a collective tuition fee will be charged" (Council of Europe, 1976). Most of the amount allocated for student support will now be given in the form of grants but a smaller proportion than before will be given as interest subsidies for voluntary loans from commercial banks.

It is interesting that the Dutch government actively considered introducing a graduate tax to replace tuition fees on the grounds that this would be more equitable than the present system of state subsidies. This proposal had to be dropped for "practical reasons" but a report submitted by the Dutch Ministry of Education to the Council of Europe states:

"The Netherlands Government regrets that it has not prove possible to recover through taxation a substantial amount of the cost of their education from graduates, more especially as the government considers that in any case it is desirable to do something about the privileged position of higher education students by some such means. The government's intention of abandoning the above method is based purely on practical considerations. Government policy in this respect will be pursued by some other means" (Council of Europe, 1976).

II.4 Sweden

The Swedish government provides three forms of financial support for students: (1) upper secondary school pupils receive studiehjälp (usually translated as study aid); (2) students in higher education receive studiemedel (study means); and (3) adults who take leave from work to take part in full or part-time education or training receive studiepenning (study benefit). The fact that three different terms are used for the three forms of assistance does not, however, mean that the three types of subsidy are viewed in isolation. In fact, the Swedish government attempts to co-ordinate the three types of assistance, so that all students are catered for; for example, part-time students in Sweden are entitled to financial assistance, unlike some other European countries where aid is available only to those studying full-time.

Two features distinguish the Swedish system of aid for students in higher education from the other countries we have described; much more use is made of loans than in many other European countries, and state assistance is provided for

all students regardless of parental means. Students are assumed to be financially independent at 19 and from 1976 onwards even a husband or wife's income is disregarded when assessing a student's eligibility for aid. In 1974-75, the proportion of students who received state aid was 70 per cent and this proportion is likely to be even higher in 1977/78 as more married students are now eligible.

All students receive a basic grant to which a long-term loan is added. When the present scheme was first introduced in 1964, the grant amounted to a quarter of aid per student and the remaining 75 per cent took the form of loans. Since 1964, the total amount of aid has risen each year in line with the cost-of-living index but the level of the grant has remained fixed. This means that the loan element has increased; in 1968 it accounted for 78 per cent of aid per student, and in 1975 for as much as 85 per cent of the total.

When the loan system was first established, all graduates repaid their loans in terms of constant purchasing power. This was done by expressing their debt in terms of the "base amount" of the social security system. All social security payments, including pensions, unemployment benefit, and student aid itself are expressed in terms of this base amount, which is linked automatically to the cost-of-living index. Thus, if prices rise, students receive more but at the same time the debt of graduates is also increased. Because this method of repayment takes account of inflation, no interest was charged for the loan. This system worked well during the sixties when inflation rates were modest, but during the seventies, when the cost of living rose sharply, students were reluctant to undertake the open-ended commitment which such a scheme implied. In consequence, the system was changed to a conventional loans scheme charging interest at 3.2 per cent a year. Thus, while 85 per cent of student aid is given in the form of a loan, there is still a considerable element of subsidy because of low interest charges.

The loans are also very long-term. Graduates must repay the debt by the time they reach 50, which means that in practice most graduates have up to 25 years in which to repay. There is an important "insurance" element built into the system.

Graduates who have low incomes, or who are ill or unemployed, are automatically excused repayment if their income falls below a minimum level; in 1974, about 10 per cent of all graduates postponed repayment for such reasons.

The level of student aid is high in Sweden, compared with most other countries. A Swedish survey of student income and expenditure (Sjård, and others, 1968) showed that more than 60 per cent of the average student income in 1968 was derived from government aid and the proportion is probably higher today. Critics of loans schemes in other countries claim that loans will deter both working-class and female students from entering higher education. This does not appear to have happened in Sweden where the social class composition of students in higher education compares very favourably with other advanced countries in the world and where female labour force participation rates are relatively high (Woodhall, 1970).

II.5 United Kingdom

Britain is alone in Europe in providing all student awards in the form of grants rather than loans; the proportion of students receiving grants (90-92 per cent of full-time students) is also much higher than in most other countries. All British undergraduates who qualify for a mandatory award, which includes almost all students taking a full-time first degree course, receive a basic grant of £50, but any additional award is dependent on parental income. In 1972-73, about 8 per cent of all student award holders received the minimum grant because their parents' net income was relatively high, and 21 per cent received the maximum grant because their parents' income was relatively low; the remaining 71 per cent received amounts varying according to the parental means test. In addition to these "mandatory awards", there are certain other discretionary grants awarded by local authorities, typically for lower-level courses. All student grants are administered by Local Education Authorities but a very high proportion of the finance comes ultimately from central government through grants to the local authorities.

In recent years, the means test has been much criticised in Britain on the grounds that many parents cannot afford to pay the "assessed contribution" which is assumed for purposes of calculating the level of a student's grant. The

National Union of Students (NUS) in Britain argues that it is quite unreasonable to expect parents to contribute towards students' living expenses until they reach the age of 25 when young people in fact reach their legal majority in Britain at the age of 18. A number of surveys of students' income have shown that many British parents in fact contribute less than their "assessed contribution" (Department of Education and Science, 1976b; Rudd, 1975; and Rudd, 1977) and the abolition of the means test now has a very high priority on the list of NUS demands. However, it was estimated in 1973 that it would cost about £40 million to abolish the means test, representing about 27 per cent of government expenditure on student grants. Parents do in fact receive income tax relief, which is assumed to compensate them for contributing towards students' living expenses; in fact, the total cost to public funds of this type of tax relief is considerably smaller than the total "parental contribution" assumed in student grant calculations.

Since it is clear that some students do suffer because their parents are unable or unwilling to contribute sufficiently to their ^{living} expenses, some British writers have suggested that loans should be made available to supplement grants. Many others have advocated more widespread use of loans but there are as many opponents as advocates of student loans in Britain (see Woodhall, 1970; Maynard, 1975). On the whole, the British debate about loans is characterised by heat rather than light. Assertions and counter-assertions are presented without much evidence. In particular, the experience of other European countries with loans is steadfastly ignored in British discussions. Indeed, the fact that loans are common throughout continental Europe is not generally appreciated in the UK. In 1973, the Expenditure Committee of the House of Commons recommended that loans should be introduced for postgraduate students, coupled with free tuition and a basic grant for all students to cover part of their maintenance costs, which would not be means tested. In other words, what was recommended was very close to the Swedish model. Without explaining any of the details of the foreign experience with loans schemes, the Expenditure Committee concluded: "We are satisfied that such schemes are practicable, that they help to contain public expenditure and

that they could contribute to a re-ordering of priorities in education expenditure to promote equality of opportunity" (Expenditure Committee, 1973). However, in 1976 the British government announced that it had no intention of introducing loans for students, and it denied that the saving involved in a loans scheme for postgraduates would be large enough to justify their introduction (see Verry, 1977b, p. 92).

The fact that all British student aid is in the form of grants and tax relief for students' parents, together with the fact that British student grants cover a much higher proportion of earnings forgone than in most other countries, implies that British students enjoy greater subsidies than in most other European countries. Some calculations in 1969 suggested that state subsidies compensated undergraduates for almost 70 per cent of gross earnings forgone, compared to only 30 per cent for a secondary/pupil staying on for a year after the minimum school-leaving age (see Table 6). These calculations are by now somewhat out of date because the real

TABLE 6: Estimates of Earnings Forgone and the Public Sector Contribution to Students or their Families UK, 1969

	For a 15-year old	For an undergraduate
Earnings forgone		
Gross pay	315	815
Less vacation and teaching earnings	-	60
Net earnings forgone	315	755
Public sector contribution		
(a) By loss of revenue		
National insurance (Employee's contribution)	30	45
Income tax of student	5	125
Income tax of parent	60	70
(b) By award		
Maintenance award, less element for books and parental contribution	-	265
Total	95	505
Balance carried by individual or his family	220	250
As a % of Gross earnings forgone	70	31

Source: Department of Education and Science (1970, p. 28).

value of student grants has significantly declined since 1969 (Williams, 1974). Nevertheless, it is still true to say that state subsidies to students represent a much greater proportion of earnings forgone in the UK than in, say, France.

All this implies that the financial barriers to more schooling in Britain are concentrated at the point of finishing secondary education rather than at the point of entry to higher education.¹ This helps to explain why the proportion of working class pupils that drop out of the educational system is not very different in Britain from what it is elsewhere in the world² despite the fact that student grants to cover maintenance costs at college or university are more generous in Britain than perhaps anywhere else in the world.

III. Implications of Alternative Patterns of Subsidy

We have shown that the predominant method of subsidising higher education in Europe is by means of grants to universities and colleges to cover virtually all tuition costs combined with grants and loans to students to help them to finance from a quarter to as much as two-thirds of their living costs (see Table 7). This pattern of subsidies has been criticised on three grounds: (1) higher education institutions are liable to government control whatever the ideology of state action in a country if all or most of their income derives from government; (2) it is inefficient to subsidise the whole of tuition costs since this provides no incentives to institutions to allocate their resources efficiently; and (3) it is inequitable to force taxpayers to finance the bulk of higher education costs because the average taxpayer has a lower income than the average graduate of tertiary education.³ These criticisms raise two quite different questions. Firstly, what should be the optimum level of subsidy for higher education and, secondly, what is the best method of providing that subsidy?

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1. This point is further developed by Paichaud (1975).
 2. For some recent comparative data, see Verry (1977b, pp. 67-71).
 3. See Verry (1977b, p. 56) for references to the European literature on the grants-loans debate.

TABLE 7: Summary of Student Aid Schemes in the Five Countries, 1974/75

	France	Germany	Netherlands	Sweden	U.K.
Type of direct financial aid to students	Grants, Loans, and Pre-employment Contracts	20% Fixed Loan + 80% Supplementary Grant	60% Basic Grant + 40% Loan	15% Fixed Grant + 85% Supplementary Loan	All Grants
Percentage of students receiving direct state aid	15	45	38 universities, 50 higher vocational education	70	92
Maximum award per student (at exchange rates in December, 1974)	\$2,099	\$2,489	\$2,988	\$3,086	\$1,500
Are awards related to parental income?	Yes	Yes	Yes	No	Yes
Do students' parents receive tax relief or family allowances?	Yes	Yes	Yes (to be abolished)	No	Yes
Tax relief as % of direct aid to students	180	X	16	--	25
Indirect aid (housing, food subsidies, health, etcetera) as % of direct aid to students	100 (of expenditure on grants)	20	X	12	18
Are fees charged?	Yes but low	No	Yes but low (to be abolished)	No	Yes but covered by grants
Interest Rate on Loans (%)	5	None	None, proposed 8.75	3.2	--
Maximum period of repayment of loans	Variable	Variable up to 20 years	10 years	Variable up to age 50	--
Does repayment of loans vary with student's future income?	No	Yes for low and zero incomes	No	Yes, repayment postponed if income less than certain level	--
Percentage of average student income derived from state aid	25 (including indirect subsidies)	40	65	over 60	54 (70 during term time)

Source: Woodhall (1977)

Notes: -- means not applicable

X means not available

Why should governments subsidise higher education at all? The economic case for subsidising higher education is typically posed in terms of a comparison between the excess of marginal social over marginal private benefits, on the one hand, and the excess of marginal social over marginal private costs, on the other. Comparing the private rate of return to higher education with the social rate of return, the invariable tendency of the latter to fall below the former is taken to be a sign that subsidies are excessive unless offset by (1) positive marginal externalities; (2) positive nonpecuniary benefits exceeding the psychic disutility of studying; and (3) capital-market imperfections inhibiting individuals from borrowing against the future returns of higher education. Unfortunately, little progress has been made in quantifying (1) and (2) - the force of (3) is dissipated wherever there is some use of loans and hence every economist is likely to reach a different judgement as to the optimum level of subsidy of higher education in the light of his casual assessment of the magnitude of (1) and (2).¹ In short, economic analysis at best affords a presumption on grounds of efficiency that the level of subsidy to higher education is almost everywhere too high but it cannot convincingly demonstrate its claim against all possible objections.

Moreover, governments subsidise higher education, not just for efficiency reasons but also for reasons of equity, not to mention various other social and political objectives, and the order of priority among these multiple objectives is liable to constant change. The point is well expressed in the Dutch government memorandum on the Contours of a Future Education System in the Netherlands, emphasising the shifts that have taken place in the aims of educational legislation in the Netherlands since the end of World War II: "At first the over-riding consideration was the protection of the most defenceless members of society against

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1. The recent popularity of the "screening hypothesis" has complicated that assessment: if firms screen potential employees in terms of educational credentials, each individual is motivated to obtain additional education to provide a "signal" of his superior qualities; as more and more individuals of a given ability attain a certain level of education, those with superior abilities are induced to attain still higher levels of education; the inevitable result of screening, therefore, is overinvestment in education and its remedy is a reduction in subsidies to higher education. The validity of the screening hypothesis, however, remains controversial.

exploitation; later the emphasis fell on the need for skilled and professional manpower, while in the last years especially, the right of the individual to develop his full potential and the need to prepare him for a place in society in the broadest sense have gained the upper hand" (Government of the Netherlands, 1976). It is vain to pretend, therefore, that we can appeal to any general principles that would specify an optimum level of subsidy to higher education, much less to general principles that would show that the present level of subsidy in Europe is somehow excessive.

But suppose it were agreed that the optimum level of subsidy to higher education is some positive number, one might still ask whether the existing subsidies to higher education are excessive in the light of alternative optimum subsidies to health, housing, public transport, etcetera. In short, let us compare the social rate of return to higher education with the social rate of return to health care, to municipal housing, to highway construction, and so forth, because investment in higher education must ultimately compete for public funds with every other type of investment.

Of course, this route to an answer is beset by even more difficulties than those that confront the quantification of the externalities and net psychic benefits of higher education. Nevertheless, there is no doubt that recent fears of rising public expenditure in the face of inflationary pressures have caused opinion in some countries to swing against the further expansion of higher education almost as if a crude comparison of alternative rates of return to various components of public expenditure had revealed the fact of overinvestment in higher education. In Germany, Sweden, and the Netherlands, as we have seen, there have been moves in recent years to seek ways to restrict admissions to higher education (see also Gordon, 1976). Curiously enough, such moves are rarely accompanied by reductions in the level of subsidy that might discourage demand for higher education. To the extent that subsidies have been reduced, they have been reduced by stealth: student grants have not kept pace with inflation in either Britain, France, or Germany. But no European government has advocated a fall in the real

value of student aid as a matter of policy. Governments appear to be unalterably committed to maintaining the present level of subsidy to students despite the fact that it could be lowered almost everywhere without significantly diminishing private incentives to acquire higher education. It is clear that governments prefer to control the size of tertiary education by administrative fiat rather than by the private purse.

The obvious explanation of this phenomenon is that equity considerations have usually taken precedence over efficiency considerations in determining the appropriate level of subsidy to higher education. Most European governments argue that it is necessary to provide free education at all levels and also to subsidise students' living expenses in post-secondary schooling so as to guarantee "equality of educational opportunity". But there is ample evidence that the provision of free tuition, combined with grants and low-interest loans for tertiary students, has not in fact achieved equality, at least as measured by trends in the social class composition of students in higher education throughout Europe (see OECD, 1975). Besides, since those that bear the costs of the subsidies are not identical with those that enjoy their benefits, there is always the question of whether the existing pattern of subsidies to higher education actually succeeds in equalising incomes.

All of which is to say that the debate about the equity of alternative methods of financing higher education has confused two quite separate questions: (1) how can we equalise opportunities for students from high and low income families?; and (2) how should the costs of education be shared between high and low income taxpayers? For example, the case for aiding students by means of grants rather than loans is based on the notion that poorer students are discouraged by a loans scheme from undertaking higher education, being risk averters who lack confidence that higher education will in fact result in higher incomes. But if repayment of loans is made income-contingent, or if instead the loan is financed by a graduate tax, it is not at all obvious that loans would in fact discourage students from low rather than high income families. Income-contingent loans are, after all, a form of

insurance against the risk of low income and it is precisely low income families who are peculiarly affected by capital-market imperfections for which a government loans scheme is supposed to provide a solution. Thus, it is at least plausible to argue on a priori grounds that a greater reliance on loans rather than grants would actually improve the social class composition of students in colleges and universities (see Verry, 1977b, pp. 84-5).

Be that as it may, if the objective of the subsidy system is to create "equality of educational opportunity", its success ought to be judged solely in terms of the social class composition of students independently of the taxes paid to finance the subsidies. If, on the other hand, the objective is the more ambitious one of equalising the distribution of personal income, then of course both the incidence of benefits received and the incidence of taxes paid must be included in a total assessment of subsidies. But in that case what is relevant is, not the current distribution of beneficiaries and the current distribution of taxpayers, but the entire distribution of lifetime incomes of both beneficiaries and taxpayers. After all, the benefits of higher education are not enjoyed by the same generation that pays taxes. Subsidies to higher education involve an intergenerational transfer of income and such a transfer cannot be evaluated simply by comparing the distribution of students by current family income with the distribution of taxpayers by current income classes.¹

Unfortunately, we are never likely to be furnished with suitable longitudinal data on personal earnings by education and taxes paid out by levels of family income. We are forced, therefore, to infer the lifetime distributional effects of the subsidy system from current data. To get a handle on the problem, let us divide all families into two classes, "rich" and "poor", depending on whether family income is greater or less than average household income in the community. We may assume that more "rich" students attend higher education than "poor" students and that "rich" families have higher lifetime income streams than "poor" families

1. See Miklius (1975) summing up the inconclusive American debate on the distributional effects of public higher education. 34

throughout their lives. On the other hand, "rich" families also have higher lifetime tax streams than "poor" families, again at each and every age, and thus taxes to finance subsidies for higher education would seem to satisfy the principle of ability-to-pay. Moreover, while lifetime chances of enjoying the benefits of higher education rise with the level of family income, so do taxes, thanks to the system of progressive income taxation, and again it would appear that the beneficiaries of the subsidy system pay their own way.

Having said this much, it is evident that the net distributional effects of the subsidy system in the real world depend upon two considerations: (1) is the incidence of the entire tax system sufficiently progressive to offset the equally "progressive" incidence of access to subsidies, that is, the tendency of the average subsidy per family to rise with the level of family income?; and (2) is the tendency of some students from what are now "poor" taxpaying families to become the "rich" income earners of tomorrow greater than the opposite tendency of some of the children of the "rich" to sink in the social structure as time passes? A positive answer to both questions implies that subsidies to higher education necessarily equalise the distribution of lifetime incomes. And even if the answer to only one of those two questions were positive, it would still be true that the subsidy system might well tend to equalise the distribution of lifetime incomes.

On the evidence available, at least for the United States, the second question must be answered negatively, and that immediately implies that we cannot arrive at a knock-down conclusion about the final distributional effects of subsidies to higher education. But the nub of the difficulty of arriving at any conclusion, whether firm or not, resides in the first question. Most tax systems in the world are not progressive throughout the entire range of incomes because the progressive effects of direct taxes are neutralised by the regressive effects of indirect taxes. Roughly speaking, and wildly generalising, the evidence suggests that tax systems are typically proportional throughout the medium range of incomes, being somewhat regressive in the lower tail and highly progressive in the upper

tail of the income distribution. Thus, if it were true that higher education is confined exclusively to the children of the very rich, it might well follow that the subsidy system does in fact imply an equalising transfer of net income. But of course it is not true: the bulk of students in higher education in most countries come from families in the second and third quartile of the income distribution, paying taxes roughly in proportion to income. However, throughout this long range of medium incomes there is a persistent tendency for participation in higher education to increase with levels of family income. On balance, therefore, it is extremely likely that the subsidy system tends to increase the degree of inequality of lifetime incomes. Various attempts have been made to measure the distributional impact of public educational expenditure in Europe and, despite the problems inherent in such measurements, they point to the conclusion that higher education subsidies favour families in the upper half of the income distribution (see Eicher and Mingat on France in OECD, 1975).

We can strengthen this general conclusion by returning to the original distinction between the distribution of benefits from subsidies and the distribution of taxes to finance these benefits. It is easier to change access to higher education than to alter the distribution of income and it is torturous reasoning to approve a fiscal policy that cannot satisfy an easy criterion - to produce a class composition of students in higher education equal to the class composition of families in the population - because it may possibly satisfy a difficult criterion - to equalise the distribution of income through time. Thus, the burden of proof in the grants-loans debate continues to rest on those who advocate grants.

Apart from the question of aiding students by grants rather than loans, there is also the question of how to provide the aid that is furnished to institutions. There are those who argue that it would be efficient to give a much greater share of the total subsidy to students rather than to institutions, so as to force institutions to compete with each other for students and, therefore, for funds. But it is not obvious that such a change taken by itself would produce that effect. For example, British universities have recently increased the level of fees but

the majority of British students have their fees paid in full from public funds, which means that the government will still be the principal source of university income. Thus, the policy of paying grants to students to cover fees will work in Britain in the same way as a policy of making grants to institutions based on student numbers. The main effect of the change will be to make the size of the subsidy more obvious and this, of course, is no small difference: open rather than hidden subsidies promote the accountability of institutions. Nevertheless, to give bite to the policy of aiding students rather than institutions, fees would have to be related to the widely varying costs of tuition in different subjects, and this is an idea that apparently strikes most European Ministries of Education as too radical to be entertained.

Conclusion

In drawing conclusions about recent trends in subsidies to higher education in Europe, it is convenient to set out two extreme models, one in which the level of subsidy is maximised to cover 100 per cent of the private costs of higher education both direct and indirect, and another in which the level is minimised but not necessarily set equal to zero (because, say, the externalities of higher education are thought to be positive, or because some subsidy is regarded as necessary to provide equality of access). The first model might be represented as a more extreme example of the British case in that almost all of UK higher education students are subsidised for the whole of their fees and for as much as 70 per cent of gross earnings forgone. The second model cannot be represented, even in exaggerated terms, by any individual country. It is a model in which all higher education institutions would charge fees that covered the total cost of educating a student in a particular subject and in which students would be provided with guaranteed loans from either private banks or public funds at commercial rates of interest. No student and no institution of higher education would be subsidised directly and all subsidies to higher education would therefore disappear except insofar as defaults on loans would have to be financed.

In between these two extreme models, we have a hierarchy of levels and types of subsidies ranging from the maximum to the minimum end of the continuum. As we have seen, the tendency throughout Europe is to abolish tuition fees and this immediately implies a definite level of subsidy, depending on the costs of tuition in different countries and the distribution of students between high-cost science subjects and low-cost liberal arts subjects. But given this definite level of subsidy to institutions, the level of student aid that is added on top of it may approach either end of the continuum. Student aid may consist solely of grants that in effect constitute a living wage and students' parents may be provided with generous tax relief, thus maximising subsidies to students. Alternatively, the system of student aid may consist entirely of loans at commercial rates of interest, thus minimising subsidies to students.

It is evident that most countries on the continent of Europe fall somewhere in between the two extremes on the issue of student aid. There is a general tendency to lean more heavily on loans and there is also a universal tendency to subsidise loans by charging interest rates below commercial levels. But there is no consistent pattern in the fraction of students aided directly by grants or loans and indirectly by food and housing subsidies and there is also no consistent pattern in the level of tax relief afforded to students' families (see Table 7). What appears to be missing in all the recent changes that are taking place in student aid schemes throughout Europe is some set of general principles that could distinguish between more and less desirable changes.

We bring our argument to a close by setting out one such set of principles. We argue, first, that all higher education institutions should charge tuition fees that represent a significant proportion of the total costs of education - the argument here is one of institutional autonomy and internal efficiency. Next, we argue that the ideal type of student aid involves a mixture of grants and loans - the argument here is one of efficiency in studying, equity in treatment, and practical politics. Lastly, we argue that both fees, the size of grants and loans, and the repayment of loans should be related to income: to present parental

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income in the case of fees, grants and loans, and to future graduate income when it comes to the repayment of loans. Several countries have established elements of this general policy of means-tested, income-related student aid schemes (see Table 7) but none have adopted it wholeheartedly.

But if all higher education institutions in Europe charged some tuition fees and then related these fees to the family income of students, and if at the same time, governments supplemented means-tested basic grants by income-contingent loans, or better still a graduate tax, both subsidies and the burden of financing them would be shared more equitably than at present. Another virtue of such a comprehensive income-g geared policy is that it could be made far more flexible than the present system of subsidies. The details of the policy could be adapted to achieve different objectives of social policy. If governments wished to encourage particular courses of study for manpower reasons, a differential level of fees could provide suitable incentives. Similarly, if the aim was to reduce the length of study in particular areas, then fees could increase steeply after, say, three or four years. If it was felt that certain groups might be discouraged from accepting loans, for instance women, then the repayment terms might be varied for them.

Such a scheme would not solve problems overnight. It is easy to claim too much for a new method of financing. It would certainly pose new administrative problems and it appears to conflict with the general tendency in industrialised countries of lowering the voting age. Indeed, we have now reached the paradoxical position in Europe of giving the vote to 18 or 19 year olds, and recognising their age of majority for purposes of entering into legal contracts, while continuing to regard them as children dependent on parental support for purposes of providing financial aids to schooling. When we consider how frequently university students earn while studying, particularly on the continent of Europe, and how frequently parents refuse to support them once they are in receipt of a study grant, the conviction grows that it is high time that student aid schemes are brought into line with electoral practice. But if all countries were to follow the Swedish

example of totally disregarding parental income when subsidising either students or institutions, the attractive notion of gearing both fees and grants to parental incomes would have to go by the board, and the entire weight of the equity argument would have to fall on income-contingent loans.

There is an escape from this dilemma, however. Social inequalities of access to higher education has its roots in preschool family background factors, which are then exacerbated by implicit and explicit achievement testing throughout primary and secondary education. Since all European countries compel school attendance until the age of 16 or 17, direct aid to students, or even indirect student aid in the form of remission of fees or tax relief cannot affect enrolments until the stage of upper secondary education is reached. Thus, there is a strong case for grants, to equalise access to higher education, not after admission to higher education, but at the ages 16-18 or 17-19, the stage at which dropouts from the school system are concentrated. And yet, in all European countries except France, grants for secondary school pupils are less generous than subsidies for tertiary education.¹ If loans in higher education were coupled with grants in upper secondary education, the last remaining argument against loans schemes would fall to the ground.

The ideal package, therefore, from the standpoint of both efficiency and equity is (1) a grants system in the last few years of secondary education; (2) a system of fees in higher education equal to say, 30 to 50 per cent of institutional incomes; and (3) an income-contingent loans scheme or graduate tax for undergraduates and postgraduates; coupled with a minimum fixed grant. We would argue that this package has overwhelming economic, social and educational merits. It might also be popular with the electorate of Europe if adequate preparations were made for its introduction. The first task would be a

1. In Germany, financial aid for upper secondary school pupils amounts to less than a third of government expenditure on student aid; in the Netherlands, the proportion is 18 per cent; and in Britain, it is only 5 per cent. France is unique in Europe in providing more financial aid for secondary school pupils than for students in higher education.

publicity campaign to inform the electorate of the family origins of the beneficiaries of existing subsidies to higher education. The next task would be to mobilise opinion in favour of an increase in the system of grants to secondary school pupils. Because of pressures on public expenditure, such an expansion of the grants system at the lower end of the schooling distribution might imply a curtailment of grants at the upper end. However, as grants in higher education are cut back, existing loans schemes may be expanded, and student opposition could be neutralised by an agreement to freeze grants at their current money value, while allowing loans to expand to preserve the real value of maintenance in the face of inflation. Alternatively, grants and loans in higher education might be preserved at existing levels with the extra funds for grants to secondary school pupils being generated by the introduction of a graduate tax, supplementing the standard income tax. A graduate tax differs from a loans scheme in that participation in the system is compulsory; hence, a graduate tax raises more revenue, everything else being the same, than a loans scheme. A graduate tax might be difficult to introduce in a federated country like Germany or the USA but, even in such countries, there is scope for a graduate tax on the local level.

We venture to predict that, as higher education in Europe continues to expand in the 1980's, the tendency to move in the general direction that we have outlined will come increasingly to dominate debates on educational finance.

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