The author discusses "post-work education" opportunities in Norway (that is, education available to those who have previously completed their schooling and have since been otherwise occupied), and outlines directions which permanent education may be expected to take. He stresses the role which existing educational institutions, and specifically the district colleges, should play. He advocated complete and adequate public financing for post-work education, including extension of the social security system to provide support for individuals' studies. [Not available in hard copy due to marginal legibility of original document.] (ME)
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REFLECTIONS ON POST-WORK EDUCATION

by

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I. INTRODUCTION

By post-work education I mean education which is normally attended by people who have previously left the educational system, and is especially adopted to this situation of the students.

Thus "work" in this context means all forms of activities after school, including e.g. the functions of a housewife.

In this sense, post-work education includes up-dating of previously acquired knowledge, further education leading to higher levels of knowledge, as well as reschooling in new fields of knowledge. Furthermore, it includes education aiming at a higher level of occupational qualifications, as well as education without any occupational implications.

On the other hand, education primarily intended for students entering directly from another part of the regular school system, is not regarded as post-work education, even if a significant proportion of the students have spent some time out of school.

Within the broader concept of permanent education, post-work education plays an essential role. In concentrating upon the latter, I view post-work education as an integrated part of a more general system of permanent education. In the perspective of this paper, any other viewpoint would, in fact, be rather meaningless.

The paper sets out to discuss the following questions:

What is the relative importance of post-work education within the total framework of educational activities?

Is there a need for an increased role of post-work education?

Is there a need for more of post-work education to be organised?

Who shall have access to organised post-work education, and how shall such access be secured?

How shall post-work education be financed, both in terms of institutional expenditures and costs to the individual?

Finally, based on answers to the questions above, what shall be the scope of organised post-work education in the future?
In examining those questions, I draw heavily upon current discussions in the Norwegian Royal Commission on Post-Secondary Education. This ad hoc Commission, appointed in 1965, has previously presented three general reports to the Ministry of Education. The first, presented in 1966, deals with the general scope of the system of post-secondary education in the 1980's, setting out the main problems facing educational policy in this field. The second, presented in 1967, outlines the structural aspects of the future post-secondary system in organisational terms. The third, presented in 1968, puts forward specific proposals concerning the establishment of "district colleges" at the post-secondary level, parallel to the universities (1).

The previous reports of the Commission have already had a considerable impact on educational policy in Norway. Thus recently, the government proposed to parliament the establishment, on an experimental basis, of three district colleges in 1969, followed by two more in 1970.

The fourth report of the Royal Commission on Post-Secondary Education, forseen by June 1969, will concern post-work education exclusively. Already in its first report, the Commission stated that this part of the educational functions at the post-secondary level must be an essential component of any programme for institutional development. Only within this broader framework can valid solutions be found to the future problems of post-secondary education.

This paper is written before the Commission has completed its discussions on post-work education. Though reflecting largely the views of the Commission, the conclusions drawn below must, therefore, be regarded primarily as the author's personal opinions. Being a member of the Commission, I am still not in a position to foresee the final outcome of its deliberations (2). However, by the time this paper is published, the report of the Commission should also be available.

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(1) A total of 12 district colleges, varying in size from 1,500 to 4,000 students are envisaged by mid 1980's, in addition to the 4 existing or planned universities.

(2) Which will in any case only concern post-secondary institutions.
II. THE NEED FOR POST-WORK EDUCATION

(a) The present scope of post-work education (1)

In 1967, institutional expenditures within the formal school system in Norway amounted to some 3,250 million kr. There were approximately 125,000 full time pupils and students in this system, 225,000 being 15 years of age or more. The time input of students at working age had an estimated value of 4,500 million kr. (2). The total resource input in formal education, corresponding roughly to the system of pre-work education, thus amounted to some 7,750 million kr.

We have very little information on the actual resource input in post-work education. Let us, therefore, as a starting point, choose the following hypothesis:

A human being spends eight hours a day on sleeping. Time spent on dressing, eating, travel to and from work, etc., may be estimated at four hours a day, leaving twelve hours for other activities. Out of these, we assume that six hours are spent working (3). Six hours daily are thus left for spare time activities. In the long run, this may prove to be an underestimation.

Let us then assume a situation in which an individual spends half an hour of his six spare time hours on education. By education I mean here all activities having the same effect as sought in formal education, and achieved by reading, watching television or radio, listening to lectures, taking part in correspondence courses, discussions, etc.

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(1) This section is based on my paper "Perspective Analysis for Education in 1990", OECD document DAS/EID 68.87, Paris 1968.

(2) The implicit assumption, that the time input of children under 15 years of age has no economic value, is, in fact, very doubtful, as it influences decisively the educational level of those entering working age, and thus also their need for further education.

(3) Six hours a day, seven days a week, amount to 42 weekly working hours, corresponding roughly to the present situation in Norway.
Let us also assume that half an hour out of the six hours of daily work is spent on keeping professional skills up to date and obtaining further qualifications. Part of this time will be spent on organised in-service training, but in the main it will undoubtedly consist of individual learning through reading, contacts with colleagues and through the work itself.

The realism of these assumptions is, of course, open to discussion. Educational activities at spare time may already correspond to the situation described above; at least our definition of educational activities does not make the assumption completely utopian. We also know that the assumption made regarding work education has already been surpassed in many professions, although mainly those requiring higher education. However, educational needs will also increase at the lower professional levels, as increasing pressure for adaptation to new work functions makes it necessary. Even if our assumptions overestimate the present time input, in the not too distant future they will probably be fairly realistic.

If for a moment we accept these assumptions, the total resource input in post-work education can be estimated to 8,000 million kr. (1) and the distribution of all resource input in educational activities as follows: about one half of the resources spent goes into pre-work education, the other half being spent on post-work education.

If, instead of half an hour each day being devoted to work and spare time education respectively, we assume one hour for each, two thirds of the total resource input would concern post-work education.

Those hypothetical examples may at least serve as an illustration of the present scope of post-work education in its broadest sense, as compared to the scope of pre-work education within the school system. More important, however, than measuring the present relative scope of post-work education, is the examination of current trends in this field, and the extent to which they point towards a more desirable situation in the future.

(b) The rationale for stronger relative emphasis of post-work education

Summarising current discussions on this topic, the arguments for a relative expansion of post-work education follow several, partly overlapping lines, being of technical, economic, social and pedagogical nature.

(1) Out of which about 90% would consist of the students' time input, and some 10% of input of other resources.
Technically, the work situation of the individual is being profoundly changed. Many work functions have always implied certain elements of training, at least at some stages in the professional career. Today, however, the training component of various work functions is increasing rapidly. Updating of skills and the achievement of new qualifications gradually becomes an important aspect of the individual's work efforts. There are already examples of positions in which more than half the work hours are spent on reading. The function as a leader is partly transformed into the function of an educator.

These trends do not reflect a transitional period of technological change. They are necessary implications of the current transformation of our productive systems towards a state of continuous change in technology and organisational patterns as the normal situation.

In economic terms, knowledge is an essential form of capital. Today, however, due to obsolescence the amortisation period of this capital is rapidly declining. Investments in pre-school education beyond a certain limit have therefore rapidly declining productivity. Re-investments in training at frequent intervals in the course of the various occupational careers have much higher profitability.

We know already the first examples of degrees and diplomas granted for a limited period of time, on the assumption that continued validity implies new tests of the graduates' ability to keep their professional knowledge up to date. Professional associations have also introduced time limits to granted membership. Renewal requires proof of maintained professional level in terms of new developments.

In social terms, obsolescence of knowledge has far-reaching implications for the whole life situation of an individual. The chances that one's initial professional training gradually becomes useless, greatly increases the economic and social insecurity of the individual. The question of an extension of current social security policies to cover also this kind of risk, inevitably arises. In several countries, social security systems already cover vocational rehabilitation and reschooling in cases of acute danger of unemployment. An extension towards preventive measures appears quite logical.
Pedagogically, post-work education normally benefits from a stronger and more goal-oriented motivation among the students. Their practical experience also provides a basis for a more real understanding of the topics taught. Furthermore, while pre-work education must prepare the student for a wide range of possibilities as regards his life pattern, the student in post-work education will be in a much better position to judge his own particular needs. Educational efforts likely to be irrelevant to the individual student can thus be saved.

The arguments above relate mainly to the individual’s occupational situation. But their validity goes much further. Each individual today is faced with the danger of losing control, through lack of understanding, of his own situation, his fate in life. This also relates to his situation as a citizen, as a participant in social life, as a consumer, as a member of a family, and not least, to his ability to understand other generations. In all these aspects of life, the rate of change is increasing, and so is the individual’s risk of genuine alienation in his own society. No group seems more vulnerable to this development than the non-working housewives.

We all pay lip service to the fact that the rate of change in contemporary society calls for a greatly increased ability in most human beings for adapting to change. Current discussions on education are crowded with statements to this effect. We may, however, tend to forget, that ability for adaptation presupposes motivation for change. And such motivation can only be based on the feeling that changes are under control, or at least influenced, by those affected. The task of education, therefore, is not only to train for adaptability, but for the mastering of changes in one’s own situation.

This far greater challenge to educational policy and practice can only be met through an expansion of post-work education, aiming at the full range of educational needs of individuals in our future societies. The effects of such an expansion cannot, and should not, be measured primarily in economic terms. There are far greater dangers involved in current societal developments than those directly connected with the rate of growth in gross national products.
However, also in terms of substance, the distinction between general education and education aiming particularly at economic performance, tends to become meaningless. This is particularly true for post-work education. We have reached a stage at which our traditional occupations, often based upon narrow scientific disciplines, may become a major obstacle to progress. Breaking down intellectual barriers established in the process of professional training may become a prime function of post-work education. The ever growing need for critical insight, which lies at the root of current educational requirements, cannot be expressed in terms of traditional elements of vocational or professional training. No public policy, and no "plan targets", can attach differentiated priorities to needs of this kind. They emerge from the individual's own situation, and can only be properly judged by himself.

(c) The role of educational institutions in post-work education

Largely, the expansion of post-work education has hitherto been left to the initiative of the individual, with some help from professional and adult education associations, and the public mass media radio and television. The library system, and public support for the publication and dissemination of research findings may also be mentioned in this context.

This implies, that no major effort has been made to bring to bear upon post-work education the intellectual potential of educational institutions. Their efforts have predominantly been concentrated in pre-work education.

One major reason for this are the practical difficulties facing people at work in attending the formal, full time education usually offered by educational institutions. However, the lack of large-scale adaptation to this circumstance of education supplied by the institutions indicates other additional reasons.

To a considerable extent, the explanation may be found in the subject structure of the traditional curricula, especially at the higher levels. Educational institutions may be regarded as the prime defenders of a specific "academic" sub-culture, based on knowledge structured according to the traditional scientific disciplines. As this kind of knowledge appears increasingly irrelevant to essential problems facing
people outside the institutions, the institutional concentration on cultural indoctrination at the pre-work level is easily understandable. Facing the demand for relevance, which inevitably arises from post-work students, such a fundamental change in the traditional, cultural values of educational institutions.

Such a change in institutional values is already occurring, though more rapidly in some countries, and in some types of institutions, than in others. The increased emphasis on post-work education inevitably points in the same direction. A more rational balance between pre-work and post-work education can only be achieved through substantial involvement also in the latter by educational institutions.

This means, however, a profound widening of the scope of their functions. Even more than before, educational institutions will have a central role to perform in our societies. They will have a key position, not only in providing a basis for human adaptation to an increasing rate of change in society, but in developing our ability to analyse our own situation, and thus to steer changes according to our aims. Our realisation of alternatives for choice, and of their consequences, and our ability to find means of mastering our own situation, is to a great extent dependent upon how far educational institutions succeed in finding ways of coping with this task.

This role is assigned to educational institutions by the developments in our contemporary society; they have not themselves asked for it. It is essential, however, that they are put in a position to carry out this task effectively. To the extent educational institutions have a critical function in our societies, post-work education will perhaps become their most potent instrument in performing such a function.

(1) More recently, such a demand for relevance has also been made, in quite vigorous terms, by pre-work students, opposing socialisation into the academic sub-culture.
III. THE ORGANISATION OF POST-WORK EDUCATION

(a) The responsibility for organisational measures

The prime responsibility for deciding the content of post-work education, and the forms such education shall take, must rest with the educational institutions from which potential post-work students have graduated. Ultimately, the responsibility for providing those institutions with the necessary resources for the task, and thus for the total scope of their activities in this field, falls upon educational authorities.

The reason for this central role assigned to the educational institutions, is the essential requirement that the content of pre-work and post-work education must be viewed as integral parts of a total supply of life-long education. The institutions must carry the responsibility for the rational distribution of this supply during the life span of an individual, and ensure the qualitative equivalence of its various components.

This general principle calls for certain modifications. Graduates from lower levels of pre-work education may find the most adequate resources for post-work education in institutions at a higher level. Thus, while post-work education for those having left school after seven years of primary education, is today entrusted to the new nine year compulsory schools, the arrangement of special courses for post-work students at the general upper secondary level are assigned to the "gymnas". For graduates from vocational schools, post-work courses are also offered by the Technological Institute (1).

Correspondingly, graduates from the future district colleges may in certain cases find the most appropriate possibilities for post-work education at the universities. The latter may not, however, always be prepared to offer adequate courses. In this case, the district colleges should attempt to develop, at least temporarily, the facilities needed, while at the same time pushing for courses to be established at the institutions best suited for this task.

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(1) A public institution with many local filials, offering exclusively post-work courses of shorter duration.
The responsibilities assigned to educational institutions in this field do not by far imply a monopoly of organised post-work education. There is a wide scope for expansion in the activities of professional and adult education associations, and of individual economic enterprises. They have moved into the existing vacuum in this field, and should be encouraged to increase their efforts.

Professional associations, however, may tend to define the needs for post-work education in rather narrow terms, as may individual firms. The latter also tend to focus their attention on immediate training needs particular to the firm in question. The broader educational needs, possibly aiming at qualifications increasing the risk of turnover, are usually left alone. Furthermore, all these institutions have limited access to the resources needed for a more general programme of post-work education.

The educational institutions must consider, in view of their overall policy for post-work education, where each type of course can best be given, and take up negotiations with outside bodies with this in view. Associations and individual firms, on the other hand, are likely to develop their own policies as regards post-work education, based on their particular interests, and should be invited to make their suggestions to the educational institutions, in addition to continuing their own activities.

In practice, a pattern of collaboration between educational institutions and relevant outside bodies has already developed in many areas, frequently leading also to joint educational activities. A further development of formally organised mechanisms for collaboration should be encouraged.

However, two qualifications should be made. Such a machinery for collaboration should increasingly be extended to cover also the corresponding pre-work education. The establishment of such a machinery should not, however, be allowed to dominate the policies of educational institutions, at the cost of other, less well organised interests. Special concern must be shown by the institutions for educational needs not clearly related to economic requirements.

This raises the question whether educational institutions today have the necessary possibilities for developing independent and consistent policies. This is again related to their administrative capacity, and their ability to establish rational internal decision making processes. The fundamental question is, in fact, to which extent these institutions are able to judge their own activities in the light of the needs of their surrounding society.
The solution of this problem will require close collaboration between the institutions and the educational authorities. The organisational pattern proposed for the district colleges may here serve as an example. The Central Board of the District Colleges is assumed to carry the main responsibility for assessing the total needs for educational facilities in the different fields, and for developmental work in new fields of study. The Board also have an important function in ensuring the proper interplay between the colleges and other educational institutions. These tasks call for a composition of the Board which safeguards it from dominance by representatives of special institutions or professional fields. The Board represents the general interests of society, and must not be tied to particular interest groups.

Such a co-ordinating body does not exist for the universities. Their activities today are co-ordinated directly by the Ministry of Education. The question of establishing a co-ordinating body for the universities, or possibly a joint body for the universities and the district colleges, is, however, under consideration.

(b) The internal organisation of post-work education

The balancing of institutional efforts between pre-work and post-work education is essential to the proper functioning of educational institutions. This calls for co-ordination, and for close interplay and exchange of impulses between the two types of education.

For those reasons, no separate internal organisation should be established for post-work education. This function should be organised together with pre-work education in each field of study.

The introduction of more extensive post-work education creates, however, a number of practical problems, such as maintaining contacts with applicants, accommodating students, etc. At present, similar problems are mainly handled by the students' welfare organisations, and they are well equipped to handle effectively such questions also in the case of post-work students.

The interests of pre-work and post-work students may not, however, always coincide, and the question of formal representation of the post-work students in the hierarchy of student bodies may cause difficulties. It may, therefore,
be necessary to establish within the institution's own administration facilities for dealing with matters of this kind, or, alternatively, to contract out such tasks to the existing students' welfare organisations.

The curriculum content of post-work education must be organised together with pre-work education as part of one total study programme. In all likelihood, a systematic integration of the two types of education will frequently offer possibilities for shortening the present pre-work courses, or at least break the consistent trend towards prolongation. In the field of medicine, a specific study suggests the possible reduction of the pre-work training of medical doctors from 6½ to 5 years. For the future, every revision of existing curricula must be undertaken as part of a general, life-long study programme.

Particularly appropriate to post-work education are the various forms of distance education, such as correspondence courses, dissemination of "packages" of educational materials, use of mass media, or combinations of those means with traditional teaching at intervals. A Royal Commission is currently examining the implications of an increased use of such measures, and its report is expected to propose major steps in this direction. This may require further strengthening of the administrative machinery of educational institutions, in order to arrive at a rational balance between the various forms of educational supply.
IV. THE ACCESS TO POST-WORK EDUCATION

(a) Formal criteria for access

Post-work education offered at educational institutions must represent an adequate updating of, or supplement to, previous pre-work education. The former should, therefore, be oriented towards a level of knowledge corresponding to that of the pre-work graduates.

Formal entry requirements, in terms of previous degrees and diplomas, should not normally be applied to post-work education. Applicants should be informed about the assumed level of students' background knowledge, but no evaluation of the qualifications of individual applicants should take place. It should be left to each potential applicant to decide what kind of education is best suited for him.

This freedom of access is particularly important because relevant post-work education will frequently cross traditional borderlines between subjects or professions. Its promise of greater flexibility is a main feature of post-work education. This promise must not be destroyed by rigid requirements in terms of formal student qualifications.

In many ways, heterogeneity in the students' educational and professional background may prove to be an advantage. Post-work education requires forms of teaching which leaves an active role to be played by the students themselves. They have obtained insights which may contribute substantially to the teaching.

In certain cases, when extensive post-work courses lead to a new level of professional qualifications, for which educational institutions act as a guarantee, more formal entry requirements may be needed. Even on such cases, however, a liberal entry policy should be applied, more liberal than the present practice of universities. Entry exams for those failing to meet formal requirements may offer a workable solution in such cases.

Special problems arise when the training capacity of an institution is too small for the number of applicants. No general criteria for the selection of applicants can be established. However, no a priori preference should be given to applicants graduated from the same institution, or in the same subject.
Today, post-work courses often have an upper age limit for access. This practice should be abandoned, as people of age may have a definite need for education. Their needs do not necessarily emerge from aspirations for higher positions, but post-work education may be essential to their continued functioning in their present jobs.

(b) Right to post-work education

The main obstacle to an expansion of organised post-work education today, is not the lack of formal qualifications for access, but the lack of opportunity in terms of leave from work and economic means. The latter problem will be examined in the following chapter. Here, we shall focus on the individual's possibilities for obtaining leave from his job for educational purposes.

At present, leave during post-work education is fairly frequently granted to employees in both public and private service. Usually, however, the precondition is, that the training in question is accepted as relevant to the employee's occupational functions.

Some enterprises and public agencies have a systematic policy of personnel development, with built-in requirements for post-work training connected with promotion or change of job. The officers' corps provides an example of this, and similar arrangements are found in the major public service sectors, post, telecommunications, railways, police, etc. Both private and public enterprises usually have a policy of "building up" future leaders, to a considerable extent through formal training. This provides some scope for post-work education, of a kind that fits the personnel policy of the enterprise.

It proves more difficult to meet the needs for current updating of professional qualifications, when no change of position is foreseen. Even more limited opportunities face an employee who wants a kind of education which is not compatible with the personnel policy of the enterprise. He may, for instance, want to qualify for a job in another enterprise or organisation.

The problem of leave also arises for those who are not employees, or are employed in undertakings too small to carry the burden of absence for longer periods. Such leave arrangements as indicated above, even when expanded to the maximum, cannot, in fact, reach more than a limited proportion of the active work force, and perhaps not those who would need it the most.
Thus the question of right to post-work education inevitably arises. It is necessary to ensure such rights for the individual, also when his educational aspirations do not coincide with the interests of his employers; and the right must be made a reality for more than a minority of the adult population.

The right to post-work education may imply a given quota of time, which each individual can claim as leave for educational purposes. To minimise the negative effects, employers must normally approve the timing, on sufficient notice; but the employee should be entitled to take out his claim within a certain time period.

It is quite conceivable, that such rights may be introduced in individual work contracts, or collective work agreements. This is the way many social improvements of working conditions have been introduced - such as security schemes against illness and age, and regulations of work hours and holidays. Frequently, such agreements have been supported by legislation, establishing minimum standards, but not preventing better terms in individual cases.

Yet, neither work agreements, nor legislation concerning the terms of those agreements, have succeeded in establishing general solutions to such social problems. Major population groups have remained outside the scope of such arrangements. The final solution has been to establish general security systems covering every individual as exemplified by the Norwegian social security system.

The development towards a general right to post-work education must follow a similar pattern. It will have to be a gradual development, the initial benefits from a general security system being limited by economic necessity. Established arrangements, and new arrangements to be made in special fields, are likely to offer terms far above the general minimum standards.

Important steps in this direction may be foreseen in the public sector. University teachers already have obtained sabbatical years, on the average one each tenth year. Two Royal commissions on teachers' working conditions already in the 1950's suggested automatic right to educational leave for teachers in primary and secondary schools, the implementation being postponed in view of the teacher shortage which is now overcome. Recently, the Government's Teacher Training Board
has proposed a new bill-in teacher training, establishing the
right for educational authorities to grant fully paid leave for
post-work training to up to 10% of their teachers. In view
of the fact that Central government automatically refunds up
to 85% of teacher salaries paid by local authorities (1), such
a measure would hardly call for great restraints in this respect
by many local authorities.

Yet, teachers are not the only public employees in need
of post-work education. In all fields of public service,
systematic studies of the need for similar measures should be
carried out. For the groups with the most obvious needs,
programmes should be prepared for the gradual development of
the right to post-work education parallel to the development of
adequate educational facilities.

In the next chapter, we shall return to the question of
more general solutions of this problem.

(c) Compulsory post-work education

It is often pointed out, that when post-work education is
offered, it obtains its regular "clientele", while many never
care to avail themselves of the opportunities offered. Often,
it may appear that the passive group represent those most in
need for such education. This opens up the question, whether
the right to post-work education, e.g. as introduced in work
agreements, should be supplemented by a duty to attend relevant
courses.

This line of reasoning provokes strong counter-arguments.
Compulsory post-work education is likely to fail in creating
the motivation necessary for effective teaching. Yet, compulsory
educational requirements are generally accepted as a basis for
promotion, and do not seem to cause negative psychological
reactions in such cases. May be the strong reactions against
more general arrangements of this kind are just temporary, as
long as they are felt as a threat against established working
conditions. In spite of this, it seems doubtful whether
compulsory post-work training should become very frequent in
occupational contexts. Other, less offensive measures may
prove to serve the purpose better.

(1) 95% of primary and secondary teachers in Norway are
employed by local authorities.
Time limits to the 'validity of degrees and diplomas are known in specific cases, in Norway particularly as regards the driving licence. This system is quite logical to the extent granting institutions may be regarded as responsible for their graduates' continuous ability to perform certain functions. It seems doubtful, however, whether educational institutions will be prepared to accept such responsibilties, at least beyond the point of graduation. What happens later, appears to be none of their concern. But, possibly, a genuine involvement in post-work education might change this institutional attitude.

From the employer's point of view, limited validity of degrees and diplomas represents only one of several criteria for the evaluation of an employee. If the requirements of the job are satisfied, the validity of previous exams has little importance. The question may, however, play a greater role in the context of change to a new job, becoming thus more an issue of job requirements than one of compulsory post-work education. In any case, initiatives towards time limitation of the validity of degrees and diplomas would be more likely to come from the users than from the producers of qualified personnel, and should hardly be a prime concern of educational authorities.

In general terms, an adequate supply of post-work education, and liberal conditions for its students, should in most cases provide sufficient incentives. In addition, each individual will be faced with increasing pressure for educational renewal, both in his work and spare time activities. The essential issue therefore is to ensure the right to post-work education for all adults, and to provide adequate opportunities for exercising this right.
V. THE FINANCING OF POST-WORK EDUCATION

The costs of post-work education consist firstly of the expenditures directly connected with the teaching, such as teachers salaries, material, equipment, building space etc. Secondly, those being taught are investing their time, at the cost of other opportunities for spending it, for instance on paid work. For the student, it is a question of income foregone; for society, it concerns the loss of directly productive efforts. Finally, many students have additional costs, caused directly by their educational activities, such as travel expenditures and costs of accommodation during studies. The financing of those different cost items is the concern of this chapter.

(a) Institutional costs

Post-work education must be brought on equal terms with pre-work education. This also implies the same financial conditions for the supply of teaching. In the Norwegian case, this means that all expenditures by educational institutions should be publicly financed.

A clearly defined basis for budgeting must be found. Standard costs per student in the different types of courses should be estimated, taking into account that post-work education often requires relatively more resources than pre-work education. As regards university education, post-work training at this level is as dependent on research as is pre-work education, and research expenditures must be included in cost estimates for such institutions.

Money may be granted to educational institutions in the form of appropriations earmarked for post-work education, or may be included in the general budgeting for their educational activities. In the latter case, the institutions will have more freedom in spending the money, and they may find it easier to integrate administratively pre-work and post-work education. Budgetary control would then only be carried out ex post.

It appears less natural that post-work education offered by private associations should have its full costs covered by the public. This would assume a limitation of the role of such associations to that of executive bodies within the framework of a general public programme of post-work education. Private adult education associations
receive at present public support, covering a certain proportion of their expenditures for educational purposes. This system should be extended to cover all organised private activities in this field, meeting recognised standards. The proportion covered by public subsidies should be judged on the basis of a general assessment of the role to be played by private organisations in this field.

(b) Income forgone

If right to post-work education shall become a real opportunity, the students must be granted at least part of their income while studying.

Gainfully employed adults, frequently supporting a family, are in an economic situation very different from that of the average pre-work student. Existing systems of public aid to students do not by far meet the financial needs of post-work students. For all students at working age, the income forgone is the most important cost factor. At present, public subsidies cover only about 10% of such costs. The rest is carried by the students and their families, and at least half of it is, in fact, financed by abstinence from consumption. This implies that the students, and to some extent also their families, maintain lower consumption standards than those possible under other circumstances.

Such financing by abstinence from consumption is in most cases not feasible for the post-work student. It is worth noticing, however, that also in pre-work education, this system of financing creates increasing difficulties, as more and more students go on to the upper levels of education. A change in attitude appears to take place among pre-work students, it does not seem obvious to them that their standard of living should only be half that of their equals of age who are not students. It may be only a question of time when other principles of financing must be sought also in the case of pre-work education.

Today, paid leave during post-work education is not infrequent, when the courses in question are clearly relevant to the employee's work. However, no such possibilities exist for independent workers, or for housewives. A general system of financing must, therefore, be found, which is not dependent upon the individuals' relations to employers, and to their particular interests.
The best solution can be achieved through an extension of the existing social security system, financed largely according to the principles applied presently.

We have already a special system of public financing of income forgone during post-work education, based on other principles than the main system of work to pre-work students. It implies the use of unemployment security funds for the support of workers during retraining. A general system of social security financing of post-work education is a logical extension of this principle. In our future society, the prime risk of unemployment does not stem from lack of work opportunities, but from lack of adaptation to new technological requirements. Gradually, this risk will become equally acute at all levels of professional skills. A similar obsolescence of acquired knowledge and attitudes is facing us in all parts of society outside working life.

Social security financing of post-work education thus becomes a preventive social measure, likely to have far greater effects than attempts on ex-post rehabilitation. It is an essential instrument in fighting what may prove to be the biggest problem of social policy in the years ahead.

Initially, the benefits derived from the social security system for post-work education will have to be moderate, covering only a limited proportion of the income forgone, up to a certain income level. Existing systems of student aid, and additional support in acute unemployment cases, will have to supplement the general security payments. (1) This also applies to special arrangements arrived at in individual work contracts or through collective bargaining, including regulations for special groups of public employees.

The special problems of non-employees, the largest group being housewives not gainfully employed, farmers, independent fishermen and members of the liberal professions, have been solved within the general social security system in a way largely applicable to an extension covering post-work education.

Practical questions concerning the possibilities for finding "alternates" during absence, create problems for many of these groups. Arrangements have been found ensuring holiday rights, and alternates during illness, although such systems are not yet fully developed. A major expansion of those arrangements will be needed in order to secure equal opportunities for post-work education for groups such as those mentioned above.

(1) The existing student support system also offers adequate coverage of expenditures on travel and accommodation, if extended to post-work students.
In the long run, security payments should be adjusted to the general needs for post-work education, substituting gradually for many of the special arrangements indicated. The aim should not, however, be the achievements of 100% public financing. Post-work education offers genuine benefits to its students, such as increased income possibilities, opportunities for more interesting professional tasks and greater security, as well as benefits not relating to occupational activities. It seems reasonable, therefore, that the students contribute somewhat to the financing of their post-work education. This may also be necessary in order to ensure a genuine motivation among the applicants.

The general principles establishing the right of all adults to post-work education, and the consequent system of social security financing of individual attendance, would most conveniently be brought together in a separate bill on post-work education. Such a draft bill is under preparation.
VI. THE DIMENSIONING OF POST-WORK EDUCATION

(a) The demand for post-work education

In its first report, the Royal Commission on Post-Secondary Education suggested that the demand by students for education should be the main criterion for the dimensioning of the educational facilities at this level. As yet, no formal decision has been made by the political authorities on this point, but the principle, already firmly established at the secondary level, appears to have won general approval.

The same principle must guide the dimensioning of facilities for post-work education. However, the demand for education is not an autonomous phenomenon in relation to government policies. At all levels, it is influenced by the opportunities for access, the costs involved for the individuals, the content of education offered etc. For post-work education, such factors are even more decisive than at other levels.

Until now, opportunities for post-work education have not by far been developed on terms equal to those of pre-work education. The main topic of this paper is how such an equivalence can be achieved. Yet, as presently, we are very far from such a situation, current indications of the demand for post-work education are of little value in judging future developments. We must rely upon more general reasoning.

During recent decades, a tremendous increase in the demand for education has taken place. In Norway, it is more usual today to attend a university than it was to go to the gymnasium in 1940, and it is also more usual than it was to obtain any form of education beyond the compulsory level in 1920. In 1900, a smaller proportion of an age group attended the gymnasium than those embarking upon a research career today.

Another illustration of this trend is provided by the number of years of schooling behind the new entrants to the labour market. The figures are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Years Behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>7.5</td>
</tr>
<tr>
<td>1940</td>
<td>8</td>
</tr>
<tr>
<td>1950</td>
<td>9</td>
</tr>
<tr>
<td>1960</td>
<td>10</td>
</tr>
<tr>
<td>1970</td>
<td>11.5</td>
</tr>
</tbody>
</table>
A prolongation of this trend points towards an average number of school years behind the new labour market entrants 20 years from now of 14 school years (1).

This means, that most young people will have grown far into adult age before they face fully any other part of our society than those represented by the family and the school. The consequences of this development have some clearly negative aspects. It does not only imply a rather drastic narrowing of the actual experience gained by young people, it will also tend to prolong the period of dependence upon others, both mentally and economically.

This problem is a major concern of educational authorities in many countries. A compulsory period of work before the entry to university has been tried. In other cases, shorter periods of practical work has been made part of the school year. However, no fully successful solution appears to be found as yet.

The main answer to this essential educational question seems to be a substantial expansion of the opportunities for post-work education, as part of a major effort towards changing the time distribution of educational inputs over the life span of each individual. This would also mean, that a greater proportion of the educational activities which have to be undertaken after the completion of pre-work schooling, will take the form of organised education. This is in itself a far more rational solution, as it is likely to imply savings in terms of the most important cost factor, both to the individual and to society, the input of students' time.

It should be borne in mind, that it makes little difference to the real size of this cost factor, whether a student is 22, 32 or 42 years of age. The difference that exists, is in the financing of such costs. This should not, however, be allowed to obscure the real economic implications of a shift of relative emphasis from pre-work to post-work education.

(1) Which, incidentally, corresponds roughly to the present situation in the U.S.A.
(b) The scope of post-work education in Norway in the 1980's

A natural target for the scope of post-work education 10 to 15 years ahead, is that 10% of all highly skilled personnel should be attending post-work education at any time. By 1985, this would imply the equivalent of 10,000 full year students at the universities, or 15% to 20% greater student numbers than previously foreseen (1). In terms of resource requirements, the increase is likely to be even greater, and may amount to additional institutional expenditures of the order 250 million kr. (2).

For the district colleges, the increase in capacity needs caused by this target for post-work education, may be even greater, as the average pre-work education period is shorter.

The need for post-work education among graduates from lower educational levels may be more limited, although this is far from certain. A drastic increase in the foreseen capacity needs for pre-work education will in any case be required at the upper secondary level.

For the educational system as a whole, the realisation of post-work education, at a general scope indicated by the target mentioned above, would imply an addition to the foreseen budgets for pre-work education of 20% to 25%. From this, however, must be deducted the cost savings in pre-work education due to a transfer of educational task to the post-work level. Furthermore, a development in this direction will inevitably act as a strong push towards "irregular" forms of teaching, especially the various kinds of far less expensive distance teaching.

Institutional costs thus present no decisive barrier to rather ambitious targets for the scope of post-work education. The question remains, however, what level of public subsidies to cover income foregone will be necessary in order to create an effective demand corresponding to such a target as mentioned above. About this, we do in fact, know very little.

(1) By the Royal Commission on Post-Secondary Education.
(2) Assumed increase in real wages up to 1985 taken into account.
Assuming, however, that by 1985 benefits from the social security system cover 50% of income foregone during post-work education (1), it seems rather unlikely that a target of 10% of the adult population attending at any time can be reached. Yet, for highly skilled groups it does not seem quite improbable.

An actual attendance level of 5% would mean payments from the social security scheme corresponding to approximately 1.5% of GNP, or by 1985 about 1,500 million kr. No exact forecast has been made of the total social security expenditures at that time. It seems likely, however, that payments for post-work education will not exceed 20% of those expenditures.

The national economy is likely to benefit greatly from such an educational investment. Counting only the direct costs in terms of lost manpower, the whole expansion of post-work education over a period of 15 years will cost less than the recent reduction in weekly work hours from 45 to 42.5. A further reduction to 40 weekly hours is already under consideration, as is a reduction in the legal pension age from 70 to 67 years of age. The latter reform will cost as much, both in terms of lost manpower, and in social security payments, as the indicated scope of post-work education.

Attendance of organised education will, and must, grow in any case, and even the present low subsidy level for students of pre-work education may prove difficult to maintain. The real choice facing us is, in fact, mainly one of time distribution of educational efforts in relation to the individual. Financial concerns about the development of post-work education are partly fictitious, and partly more than outweighed by the rationality in our educational efforts.

Institutional reforms move slowly, as do changes in systems of financial transfer, however rational they may be. The greatest obstacle to the development of post-work education may prove to be the inherent inertia of political and institutional decision making processes.

Yet, the scheme outlined in this paper attempts to offer a course for gradual development, leaving time for traditional attitudes to change. The fact that a Royal Commission, representing all political parties, and charged with the responsibility of drawing up the future directions for an essential part of the Norwegian educational system, appears quite willing to endorse those lines of thinking, is well worth noting. Adaptability to changing circumstances in our societies might prove to be greater than we tend to assume.

(1) Up to an income level corresponding approximately to the tenth percentile in the income distribution.