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SVEIN KYVIK

The Norwegian Regional Colleges

A Study of the Establishment
and Implementation of a
Reform in Higher Education

INSTITUTE FOR STUDIES IN RESEARCH
AND HIGHER EDUCATION

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P R E F A C E

This essay deals with the implementation of a reform in higher education: the establishment of the Norwegian Regional Colleges. The study is part of an international project conducted by Ladislav Cerych at the Institute of Education of the European Cultural Foundation in Paris. This international project aims at studying reforms within higher education introduced during the 1960's or early 1970's in various European countries.

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The essay is written by Svein Kyvik, a member of this institute, who is also responsible for the conclusions drawn.

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Sigmund Vangsnes

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INTRODUCTION BY LADISLAV CERYCH

This case-study is one of a group of ten undertaken in the course of a wide-ranging international project conducted by the Institute of Education of the European Cultural Foundation in Paris. The studies focus on the following topics:

- the creation and development of the Instituts universitaires de technologie (IUTs, or "University Institutes of Technology) in France;
- proposals for and development of the Gesamthochschule (Comprehensive University) in the Federal Republic of Germany;
- the creation and development of the University of Cosenza (Calabria) in Italy;
- the development of a co-ordinated system of short and long-term technical higher education in Hungary;
- the introduction of a "Preferential Point System" in favour of admission to higher education of students from workers' and peasants' families in Poland;
- the introduction of the 25/5 admission rule to higher education in Sweden;
- the creation and development of the University of Umeå in Sweden;
- the creation and development of Regional Colleges in Norway;
- the creation and development of the University of Tromsø in Norway;
- the creation and development of the Open University in the United Kingdom.

All these studies represent special cases of changes (reforms or policies) deliberately introduced into the higher education systems of the countries in question in the course of the 1960's or early 1970's. They were part of a widespread attempt to adapt higher education to emerging new requirements, to its extended goals and functions, and

also to the consequences of what was, at the time, a period of continuing expansion. Different authors had different names for this movement; probably the best known designation is the one coined by Martin TROW: a "transition from elite to mass higher education".

Implicitly, therefore, the present study, as well as the other nine, deal with some aspect of this transition, although their common denominator and main focus of interest are different. They all attempt to answer one fundamental question which is also the key question of the project as a whole: how is one to explain the difference between the original aims and final outcome of a higher educational reform?

This question was motivated by a relatively simple observation. Little more than a casual survey is required to appreciate that very few of the numerous higher educational reforms of the 1960's and early 1970's have achieved their original objectives fully. In most cases we can speak of partial achievements only, sometimes even of a dissolution of the initial aims, sometimes of their distortion or substitution by others. The phenomenon is well known in the field of organisational theory and, more recently, of policy implementation analysis, but it has very rarely been applied in practice to higher education policies. It is worth enquiring as to whether a more careful analysis of these recent reforms provide a better understanding of what really happens.

Of course, every participant in a reform process is ready with an explanation, often very simple, at least as far his or her own reform is concerned: universities resist change, professors are conservative, bureaucracy has killed the innovation, there were not enough resources, and so on. Yet a closer look at any of the reforms will reveal that things are much more complicated and that, in fact, the terms "success" and "failure" of a policy must be used with utmost caution. Success or failure with regard to which and whose criteria? Achievement or non-

achievement in respect to conditions and requirements prevailing at the outset or at a later stage? It is this kind of reflection which has inspired the attempt at a closer study.

More specifically, three questions form the core of a common outline for all the case-studies:

1. What were the original goals of the reform, new institution or policy and how did they take shape?
2. What are its present manifestations and results, especially with respect to the initial objectives and to other aims, formal and informal, which may have emerged later?
3. What were the different factors which influenced these results, whether negative or positive: how did they interrelate, and what were the missing ingredients?

In short, further information was required about objectives, results and the factors explaining them.

Policy evaluation was little more than an indirect aim of the project, which has sought essentially to improve understanding of the process whereby certain objectives were transformed into realities and, hopefully, to unearth findings relevant to future policies. As suggested in its title "Implementation of higher education reforms", the project as a whole (though not necessarily its different case-studies) was, to a considerable extent, based conceptually on policy implementation literature, primarily of American origin.¹⁾ In this connection it might be said that implementation analysis has been used to elucidate the problems of transition from elite to mass higher education and, possibly, the validity of the whole concept, especially in the new climate of diminished growth.

1) European literature on the subject is scarce, and it was hoped that the project might make a significant contribution to work in this field.

At the same time, it is hoped that analysis of the implementation of new higher education policies will increase understanding of policy implementation in general, in such a way that the project will make a contribution to the wider more theoretical framework of contemporary political (or policy) sciences. Whether it succeeds is a question which future readers of the different case-studies and of the forthcoming general report will eventually have to judge for themselves.

The aim of the general report itself, to be published in a separate volume, is to provide a comparative analysis of the main findings of this and the nine other case-studies. It seemed particularly important, in this comparative perspective, to determine how different factors in the implementation process - such as the support or resistance of groups concerned by the reform, the clarity or ambiguity of policy goals, and changes in social economic conditions - operate in different national contexts and in different combinations or interrelations with each other. Clearly, what succeeds or fails in one national and historical context does not produce the same results in another, so that probably only a comparative approach is likely to produce findings which have a broader validity, going beyond purely national or local circumstances.

However, all ten case-studies are self-contained and can be read independently of each other and of the general report. As to this one, its findings are, we believe, highly relevant not only for the project as a whole but also for a better understanding of an important reform effort within Norwegian higher education and, hopefully, of the development of European higher education in general.

Such merits as can be attached to the study unquestionably reflect of course the ability and insight of its author, to whom we wish to express here our sincere thanks for the patience with which he received our comments on previous drafts, taking into account the general outline

and orientation of the necessary research, as well as a number of specific questions to which we sought an answer for the sake of our own international and comparative perspective. We should further like to express our gratitude to all those who made this study possible and, in particular, to the Institute for Studies in Research and Higher Education in Oslo, which incorporated the study in its own research programme and generously provided all the necessary personnel and facilities.

* * *

Reverting to the overall international perspective of the project for which this study was undertaken, we wish now to add a few remarks on what, as outside observers, we have learned from the process of building up the Regional Colleges or, more exactly, on how the factors and developments identified in the present case-study compare with those revealed in the others.

First of all let us recall some similarities between the ideas and objectives of the Norwegian Regional Colleges and trends in other countries. Such similarities obviously exist in many respects:

The Regional Colleges are a particular form of what, in the terminology of international organizations, became known as "short cycle higher education"¹⁾, or sometimes also as "non-traditional higher education". The French IUTs, the Yugoslav Vise Skole, the American Community Colleges or the Quebec CEGEPs are other examples of such institutions most of which were created or developed in the 1960's, and some earlier. They all share at least one objective, along with other "short-cycle institutions" of much longer standing: they aim at providing more

1) See in particular: OECD, Towards New Structures of Post-Secondary Education, A Preliminary Statement of Issues, Paris, 1971 and Short-Cycle Higher Education, A Search for Identity, Paris, 1973.

vocationally oriented training significantly shorter than traditional university education.

Moreover, together with a few of the reinstitutions (but by no means all) the Regional Colleges also share another objective: they were partly created with a view to lifting some of the pressure off universities by offering simultaneously certain courses which could be credited towards traditional university degrees.

Finally, the Regional Colleges had at least two additional priorities shared by very few of the other establishments mentioned above. These were that they should contribute to the development of the region in which they were located, and that they should provide adult or recurrent education. Particularly unusual, therefore, in the case of these Colleges, is the rather wide range of objectives they have been expected to fulfill. To be sure, all higher education institutions - and reforms - have multiple goals but this multiplicity seems exceptionally marked in regard to the Regional Colleges.

Experience shows that such situations pose particularly difficult implementation problems usually involving possible conflict (implicit or explicit) between some of the objectives fixed at the outset. Unable to escape this danger, the Regional Colleges have probably overcome it better than most similar ventures in other countries, fulfilling today most of the functions formally assigned to them when they were first set up in the late 1960's and early 1970's. Not only do they provide shorter more vocationally oriented higher education together with continuing and adult education; they also offer important services to their respective regions and comprise a significant component in the university sector.

From an international perspective, the interesting question is how and why did the Colleges succeed to a greater extent than other comparable institutions, especially with regard to what the OECD described, some ten years ago, as the syndrome of "noble and less noble higher education"¹⁾, or what others defined as the problem of "academic drift"? Either short cycle vocationally-oriented establishments had to stick to their originally assigned programme, in which case they were often considered as second or third class establishments or they were meant to gain respectability by imitating universities, in which case they surrendered their specific character and justification. This problem came particularly to the fore in cases (like that of the Regional Colleges) in which the new institutions were supposed to offer both terminal courses and courses facilitating student transfer to regular university training. In most such situations, the transfer function rapidly became dominant.²⁾

The main explanation why this did not happen in Norway (or certainly not to the same extent as elsewhere) seems to me historical. Non-university post-secondary institutions there have in fact never been subject to the "noble/less noble" syndrome as frequently as in other countries. On the contrary, they have always been very popular and, in a sense, prestigious. Teacher training institutions, technical colleges and similar establishments, sometimes even at secondary level, have proved just as, if not more, attractive to young Norwegians than the universities.

This factor undoubtedly reflects certain forces deeply-rooted in Norwegian society, such as its geographic dispersion, its sense of pragmatism, and its conception and system of autonomous local entities.

1) OECD, Towards New Structures of Higher Education, op.cit.

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

All these considerations, in my view, acted very largely in favour of the Regional Colleges, whereas they did not operate in most of the other countries.

While this, of course, in no way detracts from the merits and initiative of those who created and developed the Colleges, nor from the innovative nature of the latter, it does reveal the importance of one particular factor in the implementation of any higher education reform. This is the extent to which it is in tune with certain inherent characteristics of the system and of the society concerned or, to take a biological parallel, its "genetic compatibility". Another example of the same factor operating in a quite different context is provided, I believe, by the British Open University which, although radically innovative in many respects, developed in a country with a long tradition of external degrees. Likewise, the 25/5 admission Scheme in Sweden was introduced with virtually no resistance, at least partly because of the highly developed national commitment to adult education.

It is possible, in my view, to invoke a similar argument to explain the non-implementation of the original idea that Regional Colleges should become the co-ordinating, perhaps even integrating, centers for all non-university post-secondary education in Norway. Strictly speaking, this was not one of their objectives since it was never approved in definitive form by either Government or Parliament. Yet, it was put forward by the Ottosen Committee in the hope that it might eventually be counted among the Colleges' principal aims.

Here, however, the same intrinsic forces which encouraged the growth of the Colleges themselves - and primarily the spirit of decentralisation - tended to prevent them becoming umbrellas for all post-secondary education. There is of course also a more trivial explanation: it is almost always easier to create new institutions than to co-ordinate or

integrate existing ones. The misfortunes of the Gesamthochschulen which attempted in just this way to amalgamate all German higher education establishments in a new type of "comprehensive university" are a case in point. Similarly, the French University Institutes of Technology which were expected progressively to absorb existing non-university establishments for the training of "higher technicians" (STS) never succeeded. In this respect both the new and the old institutions continued to develop in parallel, and even a highly centralised system such as the French one, could not prevent this. As in the case of Norway, forces other than institutional resistance were certainly of some significance, including the attitudes of professional associations, employers of graduates from the different establishments, and other pressure groups likely to be concerned. Under these circumstances, it is open to question whether the 1976 Norwegian compromise (the creation of regional boards for co-ordination and planning of non-university higher education) can be really effective or of more than symbolic value. Neither experiences from other countries, nor the first results for Norway recorded in the present study are particularly encouraging in this respect.

The Norwegian Regional Colleges could of course not overcome all contradictions or inconsistencies arising from their multiple goals. And although they succeeded better than others especially with regard to the "vocational/academic" or "non-university/university dilemma", "the university pull" remained strong. One factor which seems to have had particular importance in this respect consisted in the recruitment and appointment criteria of Regional College teachers. Since these requirements are virtually identical to those applying to university teachers, the most important protagonists in the implementation process are almost by definition inclined towards traditional academic (university) values. This also undoubtedly contributed to the fact that, contrary to original plans and intentions, research became an integral and

important part of the life of Regional Colleges. It is, however, quite natural that Norwegian policy-makers should have taken this decision, since without it, it is unlikely that the Colleges would have acquired the necessary prestige.

The same dilemma was faced by many new institutions in other countries, such as the French IUTs and British Polytechnics. In both cases, the solution was similar to the Norwegian one but its consequences for the final orientation of these institutions amounted to even greater pressure for university values or status. In a few cases, a contrary policy was adopted; a great many teachers in new institutions like the German Gesamthochschulen had status and working conditions radically different from those associated with the universities. Either the results were a virtual disaster, or the new institutions were simply regarded as little more than mere vocational schools.

Another less important but not insignificant factor contributing towards a limited adaptation by the Norwegian Colleges to university norms has been local community ambition, particularly noticeably in the case of Rogaland and Agder, which have regarded the Colleges as embryonic university establishments. The same phenomenon is also frequent in other countries where local pressures have often represented the initial phase in the transformation of an existing institution into a full university.

Notwithstanding these qualifications, it is remarkable that the Regional Colleges managed to retain so much of the highly distinct, individual character it was intended they should have from the outset. They thus constitute an interesting but infrequent example of successful policy implementation, yielding results which correspond quite closely to their original objectives, themselves not always entirely consistent.

In addition to the traditionally favourable Norwegian attitude towards non-university post-secondary education, other factors have obviously contributed to this quite successful policy venture. Of these, special reference should perhaps be made (from an international and comparative perspective) to the three following:

- (i) the relatively small size of the Regional Colleges (less than 15% of university enrolments in 1979, and about 10% in 1976). The non-integration of the Colleges with other post-secondary establishments was probably advantageous in that it enabled the former to develop unimpeded by formal administrative or institutional restrictions.
- (ii) the fact that they were entirely new institutions with a new type of administration;
- (iii) strong influential commitment to the College concept, both at central (Ministry of Education) and local levels. Often absent in comparable cases of higher education reform elsewhere, this commitment no doubt contributed significantly to establishing a reasonable balance (not necessarily without its tensions) between national and regional objectives. The latter were almost certainly achieved more effectively than in most other European ventures aiming to provide higher education with a regional dimension.

Of course, the Regional Colleges today are not exactly as they were envisaged by the Ottosen Committee. But this, I suggest, might be another important reason why, on the whole, they succeeded. As MAJONE and WILDAVSKY write, implementation is always evolution.¹⁾ The principal

1) Giandomenico MAJONE and Aaron WILDAVSKY, "Implementation as Evolution", in Jeffrey Pressman and Aaron Wildavsky, Implementation, 2nd ed. University of California Press, Berkeley, 1979, p. 182.

merit and lesson of the Regional College experience seems to me that the original plans were carried through with the right dose of flexibility allowing for adaptation where necessary, but without major distortion of the main objectives underlying them.

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I HISTORY OF THE REFORM

1.1. Introduction

This paper is a study of the implementation of a higher educational reform in Norway: the establishment of Regional Colleges. The idea for this reform was conceived in the mid 1960's to meet the increasing demand for higher education. Because of the profound changes in the social structure since World War II the existing educational system could not meet the needs and demands of society. Larger numbers of students went to university. Many of them, however, did so reluctantly because of the limited capacity at short-term higher educational institutions. On the other hand, the need for vocationally oriented higher education was growing. It was therefore considered necessary to develop new types of education as alternatives to the theoretical university education. This resulted in a proposal for regional colleges which was immediately accepted by Parliament and led to the establishment of the first three colleges in 1969.

Today 11 regional colleges have been established and the first three of them have celebrated their 10-year anniversaries. What has happened to the colleges in this period? Have the original intentions been realized? This study will attempt to answer these questions. The original goals for the colleges will be examined and confronted with the present situation. The aim of this paper is, however, not to evaluate the positive or negative results of the reform ; but rather to describe the developments that have taken place in this ten year period, and to explain why these developments have thus occurred.

The approach in general draws heavily on political science and organization theory. In most cases public policy is implemented by means of formal organizations. Theories on how organizations function internally and in relation to each other therefore constitute an important tool for the analysis of the implementation of public policy.

The study of implementation processes is a relatively new research field in political science and of great importance for the understanding of public policy. Political scientists have traditionally devoted most of their attention to policy formation processes. Numerous studies have been carried out to analyze the relationship between political parties, government and parliament, and the influence of interest groups. Much less attention has been paid to what happens after laws are passed. Nevertheless, it seems evident that public policy to a great extent is shaped during the implementation process. History shows that numerous public reforms have not met up to expectations, or that they have resulted in a series of unexpected consequences. Intentions have been good, but the outcome has been unsatisfactory or quite different from what was initially intended.

How shall we define policy implementation? Several authors have tried to define the concept.¹⁾ Hargrove indicates that the general definition given by social scientists could be described as "the means by which government carries out programs or those processes of program administration which take place after a given policy has been agreed upon in a prior policy formation and decision stage."²⁾ In our opinion this definition is too narrow to grasp the complexity of implementation processes. It very nearly limits implementation to a matter of public steering and control. Yet better steering and more control does not necessarily mean successful accomplishment. Such attempts often lack political feasibility, considering the political power of decentralized units to resist effectively any move to reform. At the same time, under conditions of western democracies, effective centralization can be resisted on the grounds that

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- 1) A discussion of the concept of implementation and the overall theoretical framework for the cross-national project of implementation of higher education reforms is undertaken by Ladislav Cerych in the general report. The aim of the present brief outline is exclusively pedagogical; to illustrate the concept of implementation and to give the reader a frame of reference.
 - 2) Erwin C. Hargrove: "The Missing Link. The Study of the Implementation of Social Policy." The Urban Institute, Washington 1975, p.1.

it is normatively undesirable as well as functionally ineffective.³⁾ Public policy is directed towards society and does not operate in a vacuum independent of those affected by it. The definition given above neither takes into account external restraints on policy implementation, nor does it regard the fact that formal goals may be subject to interpretation or attempts at alteration from various actors in the implementation process.

An appropriate definition of policy implementation is, however, not easy to formulate. Definitions in general seldom cover the richness and complexity of the social phenomena they are supposed to explain. It may therefore be more fruitful to approach the subject by describing important elements constituting recent implementation studies. As Van Meter and Van Horn have indicated, "the study of implementation examines those factors that contribute to the realization or nonrealization of policy objectives."⁴⁾ What factors should then be regarded as essential for the understanding of implementation processes?

Goals and objectives are obviously the starting point. As Pressman and Wildavsky have emphasized, "the implementation cannot succeed or fail without a goal against which to judge it".⁵⁾ Goals may be clear, but they may be unclear and vague as well. Goals may be unitary, but also multiple and conflicting. In some cases public goals have to be vague to render a decision possible. Often only broad guidelines have been formulated, and implementation might then imply the interpretation of general deci-

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- 3) Kenneth Hanf and Fritz W. Scharpf: "Interorganizational Policy Making. Limits to Coordination and Central Control." Sage Publications Ltd., London 1978.
- 4) Donald S. Van Meter and Carl E. Van Horn: "The Policy Implementation Process. A Conceptual Framework." Administration and Society, Vol. 6, Nr. 4, 1975, p. 448.
- 5) Jeffrey L. Pressman and Aaron B. Wildavsky: "Implementation." University of California Press, 1973, p. xiv.

sions made by public authorities. Secondly, the relation between means and ends is of vital importance if the goals are to be realized. In most cases public authorities can choose among prevailing routines, new standard operating procedures, or nonbureaucratic means to reach a stated goal. Appropriate choice of procedure is normally a condition for the successful implementation of objectives. But often the causal links between means and goals are only poorly understood. Thirdly, the implementing organizations can influence the outcome. The staff can be too small or incompetent to handle a matter. Traditions can hamper good intentions and innovations, and key officials may even counteract or deliberately change formal goals.

Another important factor is structural features of interorganizational interaction. Implementation of public policy increasingly involves different governmental levels and agencies, as well as interactions between public authorities and private organizations. Successful implementation will therefore be dependent on the governmental capability to coordinate cooperation between relatively independent agencies and organizations. Imperfect coordination and communication channels may lead to fragmentation in sub-goals and the attempt by individual implementing units to achieve their own objectives.⁶⁾

Finally, the impacts of economic, social and political conditions should not be forgotten. Political decisions are often made without proper attention to needs and demands of economic resources. Parliamentary decisions are often separated from budgetary allocations. The overall economic conditions may furthermore change, and so may priorities over scarce resources. The political support of specific programs can decrease and changing social conditions can lead to displacement of goals and objectives.

6) Hanf and Scharpf: *ibid.*

Policy implementation is thus a complex relationship between formal goals, the relation between means and ends, the dispositions of the implementing organs, the actions of interest groups, general structures of society, and economic, social, and political conditions. In the case of the Norwegian Regional Colleges, we accordingly suppose that the development of the institutions is a result of an interplay between those factors mentioned above. Formal goals are the basis around which behavior is organized, but they are only one of several factors which influence the outcome. This will be our theoretical starting point for the following analysis.

1.2. General background

In 1965 a Royal Committee on Post Secondary Education (the Ottosen-Committee) was established to study the future needs for higher education in Norway. The government foresaw the necessity of introducing major structural reforms in order to cope with the changing and increasing demands for education at this level. The Committee was appointed with the following mandate:

1. To suggest action which could lead to the best possible utilization of years of study and the teaching capacity at the universities.
2. Assess possibilities of relieving universities of their elementary teaching burden.
3. Elucidate the need for and types of education which could serve as alternatives to more lengthy studies at the universities for secondary school graduates with a university entrance examination or the equivalent.
4. Estimate the future need for educational capacity at the university level in addition to that which is natural to develop in Oslo, Bergen, Trondheim and Tromsø. Furthermore, suggest the location of possible new institutions of learning.

The Committee was appointed for various reasons. The demand for post-secondary education had changed in character since 1945. First, the relative number of young people seeking higher education had increased considerably. In 1945 9,5% of the 19 year old youths passed the university entrance examination (gymnasium). This proportion increased to 19,5% in 1965, and about 90% of them sought some type of post-secondary education.⁷⁾ At the universities, the student population showed an unforeseen growth. From 1960 to 1965 enrollment increased from nearly 10.000 to 20.000⁸⁾ and the universities lacked the capacity to absorb the growing number of students in a satisfactory way. An increasing number of young people were refused admittance to studies and in 1965 some 3.000 students were studying abroad.⁹⁾

Second, there seemed to be a lack of balance between university education and short-term higher education. In 1965 the universities enrolled 20.000 students; in contrast there were fewer than 10.000 students in other post-secondary institutions. While the major part of the university courses were open to all candidates with a university entrance examination, short-term institutions such as teachers' training colleges, technical colleges and colleges for social workers admitted only a limited number of applicants. A degree at the universities was stipulated to take 4-7 years of study, while the colleges were offering courses lasting 2-3 years. This situation resulted in unfortunate consequences. For young people who were refused access to the short-term institutions, the university was the only alternative within the higher education system. There were strong indications that the universities represented a second choice for many secondary school graduates. It has been argued that lack of motivation

7) Source: The Ottosen-Committee. Report nr. 1.

8) Source: Institute for Studies in Research and Higher Education, 1979:1 Norwegian Students and Graduates in 1978, table 7.

9) Ibid. table 9.

among many of these students may have contributed to the large number of students who have left the university before graduation.¹⁰⁾

Third, the development of the postwar industrial society had created new kinds of work and jobs which required new kinds of education. In a relatively short time the social structure had changed. There was a growing need for qualified manpower and vocationally oriented higher education. On one hand, the existing short-term institutions provided a limited number of programs, specializing mainly in one field: teachers' training, social work, engineering, etc. On the other hand, the theoretical studies at the universities did not satisfy the need in industry and business-life for more practical and vocational knowledge. An unforeseen reaction to this situation was an increase in the number of young people with a university entrance examination entering vocational training at the secondary level. As a matter of course these graduates caused the entrance requirements to rise and prevented students who had graduated from elementary school, for whom the vocational schools were originally intended, to be admitted.

Fourth, education at university level was mainly located in the three largest cities, Oslo, Bergen and Trondheim. In 1966 about 75% of the places in higher education were concentrated in these cities.¹¹⁾ However, the political climate changed remarkably in this period in favor of decentralization. While only 9% of the Norwegian population considered regional policy to be one of the three most important political issues in 1957, this percentage increased to 27% in 1965 and 59% in 1969.¹²⁾

10) Ingjald Ørbeck Sørheim: The Norwegian Regional Colleges, in: Short-Cycle Higher Education. A Search for Identity. OECD 1973, p.52.

11) Svein Kyvik: Desentralisering av høgre utdanning og forskning. Institute for Studies in Research and Higher Education. Melding nr. 2 1980, p.33.

12) Henry Valen & Willy Martinussen: Velgere og politiske frontlinjer. Gyldendal Norsk Forlag, Oslo 1972.

The importance of viable local communities was stressed as a reaction against the tendency of centralization in the past years. Though the short-term higher educational institutions were dispersed throughout the country, this situation made people concerned with educational policy want to create new institutions at college and university level outside the three urban centers.

1.3. Proposal of the Ottosen-Committee

The Ottosen-Committee presented 5 reports from 1966 to 1970.¹³⁾ The first report outlined some of the main problems of the future educational policy and contained a quantitative sketch of the total need for higher education. The need for places in post-secondary education in the last part of the 1980's was estimated to be 90.000. This implied a trebling of the number of post-secondary students compared with 1965. With reference to the distribution of places, the Committee estimated 65.000 were to be found within the university sector and 23.000 within other educational institutions at the post-secondary level. According to the Committee this increased capacity could only be attained by reorganizing the structure of higher education.

In its second report in 1967 the Ottosen-Committee initially proposed some changes in the organization of university education. Secondly, it suggested a reorganization of post-secondary education outside the university sector. Already in its first report, the Committee had divided Norway in 12 educational regions,¹⁴⁾ four of them with a university (Oslo,

13) Innstilling om videreutdanning for artianere m.v. Innstilling nr. 1 av 20. juni 1966. Innstilling nr. 2 av 20. juni 1967. Innstilling nr. 3 av 15. mars 1968. Innstilling nr. 4 av 3. juli 1969. Innstilling nr. 5 av 2. september 1970.

14) Norway has 19 counties.

Bergen, Trondheim, Tromsø). In each of these regions the teaching capacity was to be enlarged to cover the need and demand for short-term higher education. The proposal was based on two ideas:

1. Development of short-term vocationally oriented education as an alternative to the universities and the traditional short-term institutions.
2. Organizational and administrative coordination of all short-term higher education in each region. Existing institutions and new study programs were to be integrated in one regional organization of higher education, called regional college.

In the various regions the proposal immediately aroused great interest and enthusiasm. Some planning-committees were set up on local initiative, and from spring 1966 several local plans regarding location and establishment of regional colleges were submitted to the Ministry of Education. Whether this local engagement was due to a genuine interest in higher education or to a wish for economic and social development is difficult to say. The reason is probably to be found in both explanations.

Also at the national level, the proposal met with strong political support. This was due to both educational considerations and party tactics. In its third report, the Ottosen-Committee had planned to discuss the future role and organization of continuing and adult education. However, both the Ministry of Education and later on Parliament requested that the Committee expedite the work with a report on regional colleges. This resulted in a postponement of the report on continuing education; instead a special report on the regional colleges was prepared, containing practical proposals on organization and administration. A key person in this process was the Minister of Education, Kjell Bondevik. He belonged to the Christian People's Party, a party which gained its strongest support in the non-urban regions. Bondevik was working actively to stop the centralization tendencies in the elementary school system and to decentralize higher education.

The Ottosen-Committee presented its third report in March 1968. The Committee defined a regional college as an organizational superstructure of short-term higher education in a region.¹⁵⁾ This meant that a regional college did not necessarily have to be situated in one place, but could be located in different parts of the region. However, the Committee recommended that a college should be concentrated in one place in order to obtain an integration of the various short-term institutions. The general educational goals were formulated as follows:¹⁶⁾

1. To qualify matriculation candidates or others with an equivalent educational background for work in their chosen careers.
2. To qualify matriculation candidates or others with an equivalent educational background for further studies at the universities.
3. To qualify students who have already taken more than the matriculation examination, e.g. part of a university course, for certain vocational tasks.
4. To satisfy the need for insight into certain subjects, without necessarily aiming at qualifying for a career or further studies.

1.4. Attitudes towards the proposal

As described above, the proposal on establishment of regional colleges was based on two principal ideas. First, development of short-term vocationally oriented education as an alternative to the universities and the traditional short-term institutions. Second, organizational and administrative coordination of all short-term higher education in each region. Existing institutions and new study programs were to be integrated in one regional organization of higher education.

15) The Ottosen-Committee. Report nr. 3, p.12.

16) The Ottosen-Committee. Report nr. 3, p.13.

The first part of the proposal, development of new types of short-term job-oriented education in the various regions, was strongly supported both locally and by the Ministry of Education and Parliament. In university circles and especially in student groups, the reaction was somewhat negative. At that time the student revolt and the criticism of the western capitalist societies had reached a climax. Large student groups regarded the proposal for vocationally oriented and short-term programmes as a rationalization of higher education in compliance with the needs of the capitalist society. They feared that students at the regional colleges would have little opportunity to develop self-reflection and a critical understanding of society.

The other part of the Committee's proposal, integration of existing short-term institutions and new study programmes in each region, met with immediate resistance from some of the colleges concerned and their affiliated professional organizations. The resistance was particularly strong at the teachers' training colleges and at the colleges for social workers.¹⁷⁾ They wanted no integration in a common administrative organization which could limit their autonomous position. In addition, they claimed that administrative and organizational integration of the various short-term institutions in a region would lead to practical difficulties. Different professional and administrative traditions, different teaching methods, and great variations in staff-size and student numbers would impede an integration process.

Partly as a result of this resistance, the political decision to integrate was postponed.¹⁸⁾ Instead, the Ministry of Education proposed to esta-

17) See article of Ingjald Ørbeck Sørheim in Noralv Veggeland (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

18) Ingjald Ørbeck Sørheim: The Norwegian Regional Colleges, in Short-Cycle Higher Education. A Search for Identity. OECD 1973, p.67.

blish regional colleges as autonomous institutions without any formal ties to other short-term institutions. Already on 7 June 1968, less than 3 months after the submission of Report nr. 3 from the Ottosen-Committee, the Ministry submitted a proposition to Parliament regarding the establishment of a working group which should prepare the creation of regional colleges on an experimental basis.¹⁹⁾ On 20 June, the proposition was accepted by Parliament. Less than one year later, on 28 March 1969, the Ministry of Education submitted a new proposition to Parliament.²⁰⁾ On 20 June 1969 Parliament decided to establish regional colleges for a trial period until 1974. The regions chosen were Rogaland, Agder, and Møre og Romsdal. In August 1969 the first courses started at these institutions. On 10 April 1970 another proposition was submitted to Parliament.²¹⁾ On the basis of this proposition, Parliament established three more regional colleges; in Nordland, Oppland, and Telemark. (See map p. 55).

The proposal for regional colleges was met with general enthusiasm in Parliament. This was probably due to the fact that the colleges were seen more as a potential instrument in regional development than as an innovation in higher education. Representatives from all parts of Norway took part in the debate and emphasized the need for a regional college in their respective counties. On local initiative, some new courses were started on an experimental basis at existing short-term institutions. This local enthusiasm was obviously a main reason for the active planning process in the Ministry and the agreement in Parliament.

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- 19) St.prp. nr. 143 (1967-68). Om planlegging av prøvedrift med distrikthøgskoler.
- 20) St.prp. nr. 136 (1968-69). Om prøvedrift med distriktshøgskolar.
- 21) St.prp. nr. 121 (1969-70). Om utvida prøvedrift med distriktshøgskolar.

The Ottosen-Committee stressed the importance of treating their different reports and proposals for a reorganization of higher education in Norway as a whole. However, the proposal for development of short-term vocationally oriented courses was taken out of the total reform proposal and led to the establishment of autonomous institutions called regional colleges. The original proposal to develop an integrated higher educational system at the regional level was postponed and was to be reconsidered at the end of the test period. After the withdrawal of this proposal, the reform did not directly concern the existing institutions. Their autonomous position remained unchanged. The postponement of the difficult integration question and the enthusiasm on all political levels, made the planning and the establishment of regional colleges a speedy process. Consequently there was little time for a thorough discussion of the future role of these colleges in the total system of higher education in Norway.

1.5. Location of regional colleges

The Ottosen-Committee proposed 12 regions for higher education, four of which should have a university as a center.²²⁾ Norway has 19 counties; only six of these were to form a region of their own. The Ministry of Education did not decide on this proposal when the first regional colleges were established, but considered the 12 regions as a preliminary division.²³⁾ The Committee suggested a network of 12 regional colleges, one in each region. In the course of 1970 six of the colleges were established.

However, choosing locations was a conflictfilled process. It was a conflict both between and within the regions. In the test period, colleges

22) The Ottosen-Committee. Report nr. 1, p. 17.

23) St.prp. nr. 136 (1968-69). Om prøvedrift med distriktshøgskolar, p. 19.

would be established in only some of the regions.²⁴⁾ Several municipalities and counties applied to the Ministry for a college. Second, there was a conflict between rural and urban interests. An ad hoc committee was set up by various organizations to work for the location of regional colleges in rural areas. Third, it was discussed whether the colleges should be concentrated in one location in the region or divided into two or more sections in different parts of the region.

The conflicting interests did not lead to any serious delay in the decision making process. The first three colleges were located in the counties of Rogaland, Agder, and Møre og Romsdal in 1969. In Rogaland and Agder the regional colleges were established in the largest towns; Stavanger and Kristiansand. These two towns had already some post-secondary institutions and had done a great deal of preparatory work. Moreover, they had competed with Tromsø and lost in an attempt to get the fourth university in Norway.²⁵⁾ There was thus general agreement in Parliament on this matter. Another solution was chosen in Møre og Romsdal, where there has traditionally been a clash of interests among internal geographical districts. The college was experimentally divided into two parts, one located in a town (Molde), the other in a rural district (Volda). In 1970 three more colleges were established in the counties of Oppland, Nordland, and Telemark. In Oppland and Nordland the colleges were placed in towns. In Telemark there was a bitter debate over where the school should be situated, within a town or in the countryside. It was eventually established in a rural area.²⁶⁾

24) See Per Stava: "Constraints on the Politics of Public Choice," in James G. March and Johan P. Olsen: "Ambiguity and Choice in Organizations." Universitetsforlaget, Oslo 1976. Stava argues that the number of artium candidates in a region best explains the order in which the regional colleges were established.

25) See Kåre Rommetveit: Framveksten av det medisinske fakultet ved Universitetet i Tromsø. Universitetet i Bergen 1971, p. 84-85.

26) See Steinar Læg Reid: Distriktshøgskule - for kven? Det Norske Samlaget, Oslo 1973.

II GOALS FOR THE REGIONAL COLLEGES

2.1. Primary and secondary goals

It is to a certain degree possible to separate the original intentions as stated in official documents, from later statements about the role of the colleges. Three regional colleges were established in 1969 and three more colleges were established in 1970. The official documents in both cases have been examined. The formal goals are mainly stated in the recommendations from the Education Committee in Parliament. The statements in these documents, however, are rather brief and the recommendations are primarily a summary of the propositions from the Ministry of Education. These propositions are, on the other hand, to a large extent summaries of the reports from the Ottosen-Committee. Apart from the Committee's original intention to integrate all short-term higher education in a region into one organization, there were only slight differences in opinion. We have therefore regarded all these documents as a whole. In addition, the debates in Parliament following the two recommendations from the Education Committee, have been examined.²⁷⁾

Several objectives can be discerned, some more important than others. In the list below (table 1), we have tried to distinguish between primary goals and secondary goals. This division is based on assessments and should not be regarded as categorical. Furthermore, some of the goals are partially or potentially in conflict with each other. This question

27) The following documents have been examined: The Ottosen-Committee: Report nr. 1,2,3. St.prp. nr. 143 (1967-68) Om planlegging av prøvedrift med distriktshøgskoler. Innst.S. nr. 285 (1967-68). S.tid. p. 4770-86. St.prp. nr. 136 (1968-69) Om prøvedrift med distriktshøgskolar. Innst.S.nr. 308 (1968-69). S.tid. p. 4230-64. St.prp. nr. 121 (1969-70) Om utvida prøvedrift med distriktshøgskolar. Innst. S.nr. 249 (1969-70). S.tid.p. 2967-3036.

will be subject to a closer analysis below. However, first the various objectives will be dealt with separately.

Table 1: Goals for the regional colleges.

PRIMARY OBJECTIVES:

- Vocational education (Short-term, vocational oriented and interdisciplinary)
- Basic university education
- Continuing and adult education
- Regional relevant institutions

SECONDARY OBJECTIVES:

- Qualification for further studies
- General education
- Research
- Educational reforms

2.1.1. Vocational education

First and foremost, the regional colleges were intended to offer a short-term vocationally oriented education which was to be different both from that of the traditional universities and the more specialized short-term institutions. The colleges should have a distinct position in relation to other educational institutions and were to constitute a new alternative in higher education. Technological and social change required new types of qualified manpower. The existing short-term institutions had specialized primarily in teachers' training, social work and engineering. The students were educated for certain professions and could not

easily take jobs for which they were not trained. Conversely, the regional colleges were to be alternatives to the narrowly vocational oriented education, and should therefore be based on an interdisciplinary approach.

Following these general aims, the Ottosen-Committee proposed the creation of a variety of new disciplines and courses. Separate reports were made on courses in business and administration, business and technology, journalism, and electronic data processing. In addition to these, several other disciplines were mentioned; work in the health service and social institutions, public administration, transportation, fisheries, shipping, tourism, food technology, special education, local planning, and agricultural technology.

The Ministry of Education and Parliament supported the Ottosen-Committee's proposals. The Ministry stressed that it would be particularly important to establish short-term courses which were terminal and qualified directly for work in a chosen career. In Parliament the Minister of Education, Kjell Bondevik, characterized the regional college as "primarily a higher vocational school".²⁸⁾ The normal length of the courses was proposed to be 2 years. However, courses could be completed in a shorter or longer period.

2.1.2. Basic University Education

In addition to giving an alternative, vocationally oriented education, the regional colleges were to relieve the universities of some of their teaching burden. The Ottosen-Committee proposed in this connection that the new colleges could teach some first year university courses. How-

28) S.tid. (1967-68) p. 4779.

ever, university courses should only constitute a small part of their total teaching. The Ministry and Parliament agreed to this proposal and regarded it as a decentralization of higher education. It was stressed that basic university courses could be an educational offer to students from the rural districts who wanted to continue at a university. However, the number and type of university courses which eventually could be decentralized to the regional colleges were not decided upon.

2.1.3. Continuing and adult education

Furthermore, the Ottosen-Committee proposed that the regional colleges should have important commitments in continuing and adult education, particularly with respect to local needs for qualified manpower, but also with regard to adult education in general. Both the Ministry of Education and Parliament emphasized the importance of lifelong education and the role of the regional colleges in this respect. The Ministry stressed that special courses should be developed for part time students and indicated that up to 25% of the educational capacity could be used for this purpose. Moreover, that these courses often should be taught in the evening and not only at the colleges, but also other places in the region. When establishing the first colleges, no plans were developed for continuing education. However, it was an assumption that the regional colleges as soon as possible should engage in this field.

2.1.4. Regional relevant institutions

Another stated objective was the expected effects on social and economic life in the respective regions. First, an accumulation of expertise in the regions was regarded as an important goal, since this was primarily concentrated in the largest cities. The regional colleges were expected

to stimulate social, cultural and economic life in the regions and thus function as a counterweight to the great urban centers. Through participation and involvement in local community life, the colleges would constitute an important factor of innovation. In this connection Parliament emphasized the role of research on areas of particular relevance to the districts. Second, the establishment of regional colleges was supposed to have economic side-effects in the respective regions. New jobs would be created both in direct connection with the colleges and in the service sector. Third, the colleges should meet local needs for higher vocationally oriented education. The subjects taught should be relevant for the particular social and economic conditions in the various regions. It was intended that the respective regions should have influence on the development of the various courses. The Committee of Education mentioned, for example, that it would be natural to locate a course in fishery economics at colleges situated in fishery districts. Regional relevant study programs were thus regarded as important in order to stop the "brain-drain" from the districts.

2.1.5. Qualification for further studies

In addition to representing a short-term, vocationally oriented and terminal education, the regional colleges were expected to qualify students for further studies at the universities. Both the Ottosen-Committee, the Ministry of Education and Parliament emphasized that studies at the regional colleges should not constitute a blind alley for students wishing to continue at a university. The existing system was very rigid with only slight possibilities for transfer between short-term institutions and the universities. Most of the courses at the post-secondary colleges gave no credit in the university sector. The Ottosen-Committee therefore proposed that new patterns of study had to be created allowing greater flexibility in the higher educational system. Thus, graduates from re-

gional colleges wishing to continue their studies at a university should be permitted to integrate their former courses into a university degree.²⁹⁾ Similarly, students who had taken part of a university course should have the opportunity to continue their education at a regional college to qualify for certain vocations. However, neither the Ministry nor Parliament made any decisions in this matter. They regarded this as a question which had to be clarified with the universities in the course of the test period.

2.1.6. General education

The importance attached to vocational orientation in the reports from the Ottosen-Committee was heavily criticized by radical university students and academics. They feared that graduates from the regional colleges would become unreflected and uncritical with respect to their attitudes towards society. It was suggested that the colleges also ought to offer an element of general education. As a result of this opposition, an ad hoc committee was set up on 12 August 1969 by the Ministry of Education to prepare plans on "allmennfag". This term may be translated as "general studies", "subject criticism", "societal, environmental and cultural studies", etc.³⁰⁾ The report was submitted to the Ministry on 6 December 1969.³¹⁾ According to the committee's proposal, "allmennfag" was to pro-

29) A brief description of the Norwegian university degree system is given in the Appendix II.

30) See Ingjald Ørbeck Sørheim; The Norwegian Regional Colleges, in Short-Cycle Higher Education. A Search for Identity. OECD 1973,p.64.

31) "Innstilling om Allmennfag i distriktshøgskolane". Frå eit utval oppnemnt av Kyrkje- og undervisningsdepartementet 12. august 1969. Innstillinga lagd fram 6. desember 1969.

vide students with a broader perspective on the relation of respective disciplines to society than study within such disciplines alone could provide. Accordingly, "allmennfag" would treat three perspectives:

1. A sociological approach concerning social and political problems.
2. An interdisciplinary approach avoiding rigid divisions of subjects and overspecialization, such as those found at the universities. By stressing a broad interdisciplinary context, it was hoped that practical interests would be served.
3. A meta-scientific approach providing insight into the foundational problems of scientific knowledge.³²⁾

To meet these needs the committee made the specific recommendation that three obligatory courses be included in the curriculum. Each of these courses would be both interdisciplinary and problem-oriented: a course for each broad area of specialization; "natural resources" with natural science, "social planning" with social sciences, and "cultural work" with practical esthetics. According to the proposal, "allmennfag" was to supplement the core curriculum in each of the two-year courses, taking no more than 15-20% of the total study time.

Parliament agreed that the regional colleges in addition to their vocational orientation should have elements of general education. The Committee of Education maintained that this goal could very well be combined with the establishment of the course in Economics and Business Administration. However, Parliament did not come to a decision on the specific proposal, as this was not considered by the Ministry.

32) See Lars Løvlie; Allmennfag og fagkritikk. Article in Noralv Vegge-land (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

2.1.7. Research

According to both the Ottosen-Committee and the Ministry of Education, the colleges should not engage in research. This was said to be the fundamental difference between the universities and the regional colleges. Personal engagement in research was not considered necessary for teaching at college level. On the other hand good contact with research institutions was regarded as a prerequisite to keep informed about recent results.

Parliament, however, saw the role of research at the regional colleges somewhat differently.³³⁾ No difference of opinion had been expressed in 1969 when the first three colleges were established. In 1970, however, the Committee of Education stated that some research was desirable. The Committee expressed that with the limited resources which were at its disposal, it was unrealistic to aim at building up expensive research projects at the colleges. But it would be natural to develop research activity within some of the social sciences, the humanities, and on industrial and cultural areas of particular relevance to the respective regions.

In the debate in Parliament preceding the establishment of three more regional colleges for a trial period, this issue was taken up by several representatives. They maintained that involvement in research could be desirable, and stressed that research activities primarily should be concerned with areas of particular relevance to the region.

33) For a detailed analysis, see: Ole Johan Sandvand: Forskning ved distriktshøgskolene - en oversikt over uttalte målsettinger i offentlige organer. Notat nr. 9/1974. Institute for Studies in Research and Higher Education.

2.1.8. Educational reforms

The Ministry of Education emphasized the importance of engagement in educational reforms with reference to the development within instructional technology in other highly industrialized societies. The establishment of the regional colleges was therefore regarded as an excellent opportunity for experimentation. New ideas would be easier to adapt in these colleges which lacked the traditions of the old institutions. A separate report on educational reforms in the regional colleges was made on the Ministry's initiative.³⁴⁾ Here it was suggested that the regional colleges should attempt to break with tradition in curriculum, planning, methodology and evaluation. This report was not taken into consideration by the Ministry or by Parliament. However, Parliament regarded experiments in this field as valuable in the test period.

2.2. Ambiguous and conflicting objectives

In the goal formulation process it was stressed that the regional colleges should develop an alternative profile compared to the universities and the existing short-term institutions. They should be independent colleges with their own identity. However, the adapted objectives were relatively vague and open with respect to which functions the colleges were to fulfill, the content of these functions, and the distribution of resources among them.³⁵⁾ The urgency at the outset gave little room for a comprehensive debate on priorities. The proposed system of regional

34) Sven Persson: Pedagogisk utviklingsarbeid i forbindelse med distriktshøgskolene. Vedlegg 2 til St.prp. nr. 136 (1968-69).

35) See Ole Johan Sandvand: Regional Colleges - University Copies or Alternative Institutions? Institute for Studies in Research and Higher Education. Melding nr. 2/1976. The thesis focuses on the tendency towards "academic drift" in educational institutions outside the university sector.

colleges immediately became popular in the regions as well as centrally, and gained strong political backing; it was seen as a chance to distribute benefits to the regions. The motion was carried through the political process with great speed. In Parliament, the question of regional colleges seems to a large extent to have been regarded as a question of regional policy; the educational aspects were not thoroughly discussed. The issue of regional policy, in general, and of decentralization of higher education, in particular, thus seems to have made the establishment of the colleges of prime importance; the problems of which tasks they should perform and how these goals should be reached became subordinate matters.

Furthermore, it is important to bear in mind that the regional colleges were to be established on a trial period until 1974. This may explain the relatively superficial debate in Parliament on future objectives. Parliament moreover emphasized that the final role of the regional colleges within the system of higher education first could be ascertained after the test period. The relations to the universities, other research institutions, and the other short-term institutions furthermore had to be assessed and clarified.³⁶⁾

A certain framework was given by the policy making organs at the start, but the content was to be specified in the course of the trial period. In this process a number of ambiguous and conflicting goals had to be clarified and balanced. Several dimensions of conflict may be distinguished, some more important and evident than others. (See table 2)

36) Innst. S.nr. 308 (1968-69), p. 595.

Table 2: Dimensions of conflict in the regional colleges

Vocational education	- University education
Vocational education	- General education
Vocational and terminal education	- Qualification for further studies
Continuing and adult education	- Full time education
Teaching	- Research
Regional teaching institutions	- National teaching institutions
Regional service institutions	- Autonomous institutions

Some conflicts were obvious at the preparatory stage; others appeared in the course of the first years. Some of the conflict-dimensions were roughly balanced in the decision making process, while other potential conflicts were regarded as unproblematic and not considered. It would, however, be misleading to regard opposing goals as incompatible. It would be more correct to view the conflict dimensions as evidence of the tensions inherent in the goal structure. Below we shall briefly discuss the conflicts and examine to what degree the balance between opposite goals was clarified in the goal formulation process.

2.2.1. Vocational education vs. university education

The regional colleges were intended to be different from the universities. As alternative institutions they were to teach different types of subjects, but also relieve the universities of some of their teaching burden; that is to say some first year university courses. It was unclear how these tasks should be balanced and which university courses the colleges should teach. The Ottosen-Committee proposed that eventual university courses should "only constitute a small part of the total activities".³⁷⁾ The Ministry of Education agreed with the Committee in this respect, and sta-

37) The Ottosen-Committee. Report nr. 2, p.37.

ted that "above all it is important to experiment with alternative types of courses."³⁸⁾ The Ministry, however, did not distribute resources between the two functions, nor did Parliament.

2.2.2. Vocational education vs. general education

In addition, the regional colleges were to offer vocationally oriented courses. As a counterweight, however, to vocational aspects the curriculum was to contain elements of general education. A special committee formed by the Ministry of Education proposed that 15-20% of the curriculum should consist of "allmennfag": general subjects such as theory of science, and societal and cultural studies. Parliament agreed to the proposal for some general education in addition to the vocationally oriented core curriculum. The specific proposal, however, was not decided upon. This question was postponed pending the Ministry's consideration of the matter. Although the role of "allmennfag" was not clarified, a measurement of the distribution of time and resources between vocationally oriented and general education had been proposed. Nevertheless, there generally seems to be an inevitable conflict between content inherent in subjects themselves and the more external theoretical and critical perspectives. In the long run disciplinary demands tend to be so strong that more general perspectives easily could be regarded as a foreign body.

2.2.3. Vocational and terminal education vs. qualification for further studies

The regional colleges were meant to offer an education qualifying one directly for the labor market. On the other hand, both the Ottosen-Commit-

38) St.prp.nr. 136 (1968-69), p. 8.

tee, the Ministry of Education, and Parliament stressed that the colleges also should qualify students for further studies at the universities. Neither the Committee nor the Ministry seemed to regard these two objectives as conflicting. Parliament, however, admitted that it could be difficult to comply with both functions within the frame of a two year study program.³⁹⁾ It has been recognized that the two functions can not easily be fulfilled at the same time.⁴⁰⁾ The question of appropriate curricula and of pedagogical linkages between practically and theoretically oriented studies probably represented the core problem for compatibility between transfer and terminal courses.

If the purpose of the courses should primarily be to enable the graduates to enter employment on completion of their studies, the teaching probably ought to stress vocational training. Such emphasis could, on the other hand, impede the possibilities for transfer into the university system. The universities might be hesitant to approve courses as part of a university degree if the studies deviated too much from the academic tradition. On the other hand, if the college courses were given a theoretical and academic profile to qualify the students for further studies at the universities, the regional colleges would not meet society needs for vocationally oriented higher education. This problem of balance between practical and theoretical training was not considered when establishing the regional colleges for a trial period. However, Parliament stressed that the question of transfer had to be clarified with the universities as soon as possible.

39) Innst. S. nr. 308 (1968-69), p. 596.

40) See Dorotea Furth: Short-Cycle Higher Education: Some Basic Considerations, in Short-Cycle Higher Education, A Search for Identity. OECD 1973.

2.2.4. Continuing and adult education vs. full time education

With the establishment of the regional colleges, continuing and adult education was to be institutionalized within the framework of the higher education system. The Ministry of Education indicated that up to 25% of the resources could be used for this purpose. This proportion was not meant to be a prescription. The priorities given to full time education and continuing education respectively, were to be the responsibility of the colleges. However, there generally seems to be an integral contradiction between the basic course of study and continuing and adult education. When they are both to be attended to within the same institution, priority will easily be given to the principal goal; education of full time students.

It has been stated that a conflict exists between the requirements of the basic course of study and those of continuing and lifelong learning. This is as fundamental as the traditional conflict between academic and vocational education. To assign "regular" institutions the central role in adult education is a way of disregarding this fact.⁴¹⁾ Adult education could be considered as a symbol of lower institutional status and might thus be given less priority.

2.2.5. Teaching vs. research

Another problematic question was the role of research at the regional colleges. Contrary to the traditional universities, the regional colleges were primarily to be teaching institutions. On the other hand, Parliament expressed that a certain degree of research was desirable. However, it seems obvious that Parliament was of the opinion that the colleges were to engage in disseminating knowledge rather than in extending the

41) See Reviews of National Policies for Education, Norway. Examiners Report. OECD 1974, p. 56.

frontier of learning by research. As opposed to the universities, involvement in research would be voluntary, not obligatory. Both teaching and research are very time-consuming activities, but a possible conflict between these two tasks was not foreseen, probably because research was intended to play a relatively unimportant role.

2.2.6. Regional teaching institutions vs. national teaching institutions

An important goal for the regional colleges was to meet local needs for higher vocationally oriented education. The courses were to be relevant for the particular social and economic conditions in the various regions. On the other hand, the colleges were also to meet particular needs for qualified manpower, not covered by the existing institutions. Parliament therefore decided that students all over the country were to be given access to the colleges, irrespective of place of residence.⁴²⁾ However, the role as both regional teaching institutions and national institutions could possibly be conflicting. The main problem was that of curricula. If a regional college offered a course not taught at other institutions, the course would cover a national need, and would consequently get applications from various parts of the country. To what extent would the curriculum then reflect regional and national problems and issues? The regional colleges would in that case have a national responsibility, and accordingly would have to take this fact into consideration.

2.2.7. Regional service institutions vs. autonomous institutions

The regional colleges as local service institutions is another problematic objective. Traditionally, academic teaching institutions have only had superficial contact with the local community. The regional colleges were to change this situation. Each institution was to have a board con-

42) Innst. S. nr. 308 (1968-69), p. 597.

sisting mainly of local representatives. Contacts with local authorities and industry were encouraged. However, such institutional autonomy is traditionally considered fundamental in fulfilling basic functions of higher education. Higher educational institutions would normally have certain academic requirements, while representatives from local authorities and industry presumably would stress practical training. Similarly, the colleges might emphasize the importance of academic standards in research, while the local community would demand practical and applicable results. The possible conflicts between local requirements and institutional autonomy were not seriously discussed beforehand. Nor could such conflicts be solved at the planning table.

* * *

The goal conflicts mentioned above should not be overdramatized. Internal tensions and conflicts are normally common concerns in the life of every organization. Nor should internal conflicts be regarded as only negative; in many respects they can be a source of development. Nevertheless, tensions were inherent in the goal structure of the regional colleges and different objectives had to be balanced against each other.

In general, the goals for the regional colleges may be characterized by the following statement by Majone and Wildavsky:

In most policies of interest, objectives are characteristically multiple (because we want many things, not just one), conflicting (because we want different things), and vague (because that is how we can agree to proceed without having to agree also on exactly what will be done).⁴³⁾

Normally, situations like this give the various actors, they be either individuals or organizations, a good occasion to influence the implementation process. When goals are not precisely formulated as well as be-

43) Giandomenico Majone and Aaron Wildavsky: "Implementation as evolution." Policy Studies Review Annual, 1978 Vol. 2, p. 108.

ing in conflict with each other without clear priorities, various actors may gain ground for their particular interests and demands in the course of the implementation process. In addition, this educational reform was implemented within organizations without traditions. The regional colleges were to be independent institutions with new teaching subjects and curricula. The teaching staff would be new, and rules and regulations had to be formulated.

In our opinion, the establishment and the implementation of the regional college reform may be regarded as an occasion for individuals and groups to realize their particular interests and plans. The relatively vague formulation of many of the objectives provided good possibilities to develop the colleges according to their own definitions of the new institutions' purpose and their educational content.⁴⁴⁾

Ten years have now passed since the first colleges were established. To what extent have the regional colleges lived up to expectations? Have they developed into different institutions from what they were intended to be? In the following chapter we shall try to describe the present state of the reform. The original objectives shall be successively compared with the actual outcomes, and the description will as far as possible be based on quantitative indicators.

In most cases, however, clear-cut goals and straightforward results may not easily be discovered and evaluated. Different outcomes may not readily be termed good or bad. Moreover, it is important to have in mind that the regional colleges are still developing.

44) These theoretical considerations have many parallels to what is called "garbage can decision processes" in decision making theory. See James G. March and Johan P. Olsen: *Ambiguity and Choice in Organizations*. Universitetsforlaget, Oslo 1976.

III THE PRESENT STATE OF THE REFORM

3.1. Introduction

At present 11 regional colleges have been established and one further school is planned to commence teaching autumn 1981. As shown in figure 1, the colleges are situated in 10 different counties throughout the country. In the autumn term 1979 the regional colleges had a total staff of 507, of which 337 were teachers. The number of full time students exceeded 4.500 and the number of part time students was approximately 6.700.

The regional colleges are not a homogenous group of institutions. A comparison of the individual colleges reveals considerable differences both with regard to size and types of courses offered.⁴⁵⁾ In fact the disparities between the colleges may be said to be more striking than the similarities. (See table 3). The variation in size is dependent on the time of foundation and the size of the population in the region where the college is located. The relative differences in size between the colleges is likely to persist.

The importance of the regional colleges within the system of higher education in Norway should, however, not be overemphasized. A comparison of student numbers at the various types of institutions (table 4), indicates that the regional colleges have only a small proportion of Norway's total number of students (6-7%). Moreover, out of a total student number of about 30.000 outside the university sector, only 15-20% are enrolled at the regional colleges.

45) A list of subjects taught at the regional colleges in the spring term 1980 is given in the Appendix I.

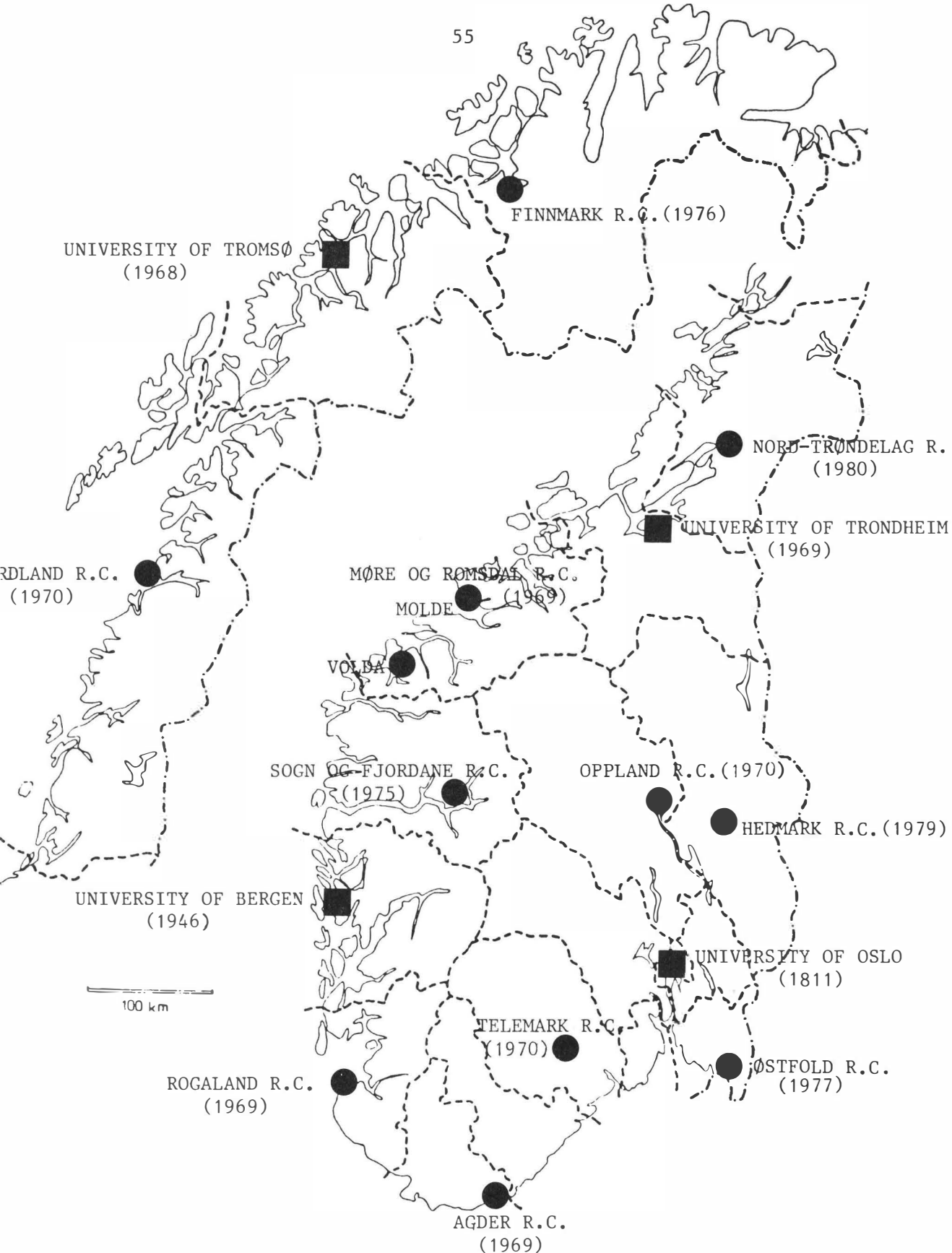


Figure 1: Map of Norway, showing the location of the regional colleges and the four universities with year of establishment.

Table 3: Staff number and student number at the regional colleges in the autumn term 1979.⁴⁶⁾

Regional college	Total staff	Teaching staff	Full time students
Agder R.C.	81	55	989
Rogaland R.C.	96	61	832
Møre og Romsdal/Molde R.C.	41	28	505
Møre og Romsdal/Volda R.C.	40	28	384
Telemark R.C.	61	42	617
Nordland R.C.	59	40	437
Oppland R.C.	53	34	354
Sogn og Fjordane R.C.	26	16	101
Finnmark R.C.	20	13	71
Østfold R.C.	22	16	180
Hedmark R.C.	8	4	48
Total number	507	337	4 518

Table 4: Number of students in higher education in Norway in 1979.⁴⁷⁾

Type of institution	1979
Regional colleges	4.597
Teachers' training colleges	12.734
Technical colleges	6.261
Other institutions outside the university sector	7.817
Total number	31.409
Universities	40.643
Total number	72.052

46) Source: Ministry of Education. St.prp. nr. 1 (1979-80) and St.prp. nr. 1 (1980-81).

47) Source: Central Bureau of Statistics of Norway. Educational Statistics. Universities and Colleges 1979, Table 10.

No estimate of future student number in the regional colleges was offered in the original proposals. In these proposals all higher education outside the universities was regarded as a whole. Thus, the Ottosen-Committee in 1966 estimated the future need for places in post-secondary education by the end of the 1980's to be approximately 90.000, 65.000 of which were to be found within the university sector, and 23.000 (26%) within other institutions at the post-secondary level.⁴⁸⁾ In 1979 the total number of students reached 72.000 of which 31.000 (44%) were found outside the universities. The growth in the number of places within short-term higher education has thus been much higher than foreseen by the Ottosen-Committee. According to budget proposals from the Ministry of Education this trend is likely to be strengthened.⁴⁹⁾

3.2. The teaching staff

Table 5 shows the number and types of teaching positions at the regional colleges in 1980. There were 7 associate professors, 31 "undervisningsledere" which were to be heads of departments, 308 lecturers/first-lecturers and 15 research fellows. Associate professors, lecturers, first-lecturers, and research fellows had the same salaries as university teachers at the same level. The position of "undervisningsleder" had no counterpart at the universities. The salary was between that of a first-lecturer and an associate professor at the university.

The teaching staff may be grouped into four main disciplines. 30% of the teachers were working within the social sciences, 25% within mathematics and natural sciences, 20% within the humanities, and 25% within

48) The Ottosen-Committee. Report nr. 1, p. 13.

49) Ministry of Education. St.prp. nr. 1 (1979-80), p.74.

commercial and economic courses.⁵⁰⁾ The teaching staff was, furthermore, very young. In 1979, 75% of the teachers were not more than 40 years old, and only 4% were over 50 years old.⁵¹⁾ In 1979, 10% (34) of the teachers held a doctor's degree.⁵²⁾ The corresponding proportion in the university sector was 27% in 1977.⁵³⁾

Table 5: Teaching positions at the regional colleges in 1980.⁵⁴⁾

Type of position	1980
Associate professor (høgskoledosent)	7
"Undervisningsleder"	31
Lecturer/first-lecturer (amanuensis/førsteamanuensis)	308
Research fellow (stipendiat)	15
Total number	361

The number of female teachers at the regional colleges was very low. In 1979 only 7% (24) of the teachers were women,⁵⁵⁾ compared to 14% within the university sector in 1977.⁵⁶⁾

50) See Svein Kyvik: Desentralisering av høgre utdanning og forskning. Institute for Studies in Research and Higher Education. Melding nr. 2/1980, p. 60.

51) Source: Kyvik, *ibid.* p. 59.

52) Source: Norges Statskalender 1980.

53) Source: Kyvik, *op.cit.*, p. 59.

54) Source: Ministry of Education, St.prp. nr. 1 (1979-80), p. 90.

55) Source: Norges Statskalender 1980.

56) Source: FoU-statistikk 1977. Forsknings- og utviklingsarbeid. Utgifter og personale. Separat tabellvedlegg, tabell T15.

Table 6 shows the teachers' working experience before employment at the regional colleges.⁵⁷⁾ Only 12% had no work experience. 15% of the teachers had been research fellows, 31% research assistants, 26% university teachers, and 12% researchers. All these positions normally require commitment to research. 60% of the regional college teachers had held one or more of these positions. Today ability and experience from research is undoubtedly the basic criteria for appointment.

Table 6: The teachers' work experience ($\frac{1}{2}$ year or more) before employment at the regional colleges. 1979.⁵⁸⁾

Position	Percentage
No working experience	12%
Research fellow	15%
Research assistant	31%
University teacher	26%
Researcher	12%
Teacher in upper secondary education	20%
Public administration	20%
Private enterprise	13%
Other positions	9%

3.3. The students

Graduates from regional colleges are awarded a special regional college degree (høgskolekandidat) after two years. The students are entitled to the same loans, scholarships and other social benefits as university students.

57) The table adds up to more than 100% as 54% of the teachers had held two or more earlier positions.

58) Source: Kyvik, op.cit., p. 61.

The regional colleges are popular, and must refuse a number of applicants each year. In 1977 there were 5.237 applications for 2.613 places. The number of applicants is, however, a spurious figure as students normally apply to more than one college. This represents a problem for the college administration which provisionally has to accept more students than there are places, expecting a number of their applicants to go elsewhere. In 1977 4.114 applications were approved for 2.613 places.⁵⁹⁾ Despite this some of the colleges have problems in filling certain courses. This shows that some courses are more popular than others, and that the reservoir of applicants is much smaller than the total number of applications may indicate.

Applicants for full time studies are expected to have either a university entrance qualification or its equivalent. However, relevant work experience may qualify for admittance. The regional colleges have been more liberal in this respect than the universities. The proportion of accepted students without the university entrance examination has been higher at the regional colleges; about 20%⁶⁰⁾ against 8-10% at the Universities of Bergen and Oslo.⁶¹⁾ Neither the regional colleges nor the universities have hitherto made systematic evaluations of the effects of these new entrance regulations. However, a study of five courses at Telemark R.C. shows that the majority of students without the university entrance examination had considerable problems, and many of them left the courses prematurely.⁶²⁾

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- 59) Source: Studieadministrasjonen ved regionale høgskoler. Agder Regional College 1979, p. 21.
- 60) Tor Brattvåg: Søkning og opptak til distriktshøgskolene 1972, 1973, 1974, 1975, 1976, 1977. Agder Regional College.
- 61) Source: Unpublished material 1980.
- 62) Vidar Ringstad: Bakgrunn og prestasjoner til studentar ved Telemark distriktshøgskole. Telemark distriktshøgskole - Skrifter 32, 1978.

The regional colleges were expected to attract young people from the working classes to a greater extent than the universities.⁶³⁾ Short-term and vocationally oriented courses were regarded to be better suited to specific attitudes and motivations. However, there are strong indications that equality of educational opportunity is mainly dependent upon the measures taken at the lower level of the educational system. Those taken in the higher education sector can have but a marginal effect.⁶⁴⁾ Unfortunately, data is not available to tell us whether the proportion of students from the working classes is higher in the regional colleges than at the universities.

What would have been the alternatives to studies at the regional colleges? Would the regional college students have entered the labour market or have taken courses at another institution? Data from a questionnaire sent to graduates in 1971 and 1972 may give some indications. The graduates were asked what they would have done, if the regional colleges had not existed or if they had not been accepted at the colleges. As shown in table 7, almost 80% of the regional college graduates would have chosen another post-secondary education, primarily at a university. Only about 15% of the graduates would have entered the labour market. According to these data, the regional colleges are to a minor extent engaging the interest of new groups of people. The colleges are first and foremost a new alternative for those who in any event would have taken post-secondary education.

63) See Ingjald Ørbeck Sørheim: The Norwegian Regional Colleges, in Short-Cycle Higher Education. A Search for Identity. OECD 1973, p. 67.

64) See Gudmund Hernes and Knud Knudsen: Utdanning og ulikhet. NOU 1976: 46.

Table 7: Percentage of graduates from regional colleges in 1971 and 1972 according to alternative activities if they had not been accepted.⁶⁵⁾

Alternatives	1971	1972
Education at a Norwegian university	46	33
Education at a foreign university	3	8
Education at another Norwegian institution	29	38
Enter the labor market	13	17
Other possibilities	3	-
Do not know	6	5

Table 8 shows the proportion of female students at the regional colleges and the universities. One third of the regional college students were women in 1979. This percentage has gradually increased from 22% in 1973 to 35% in 1979. Nevertheless, the proportion of female students has always been smaller in the regional colleges than at the universities. On the other hand, the proportion of women varies greatly between the colleges, probably because of different kinds of courses. The percentage of female students at Oppland R.C. has thus fluctuated around 50% since 1973.

Table 8: Proportion of female students at regional colleges and universities 1973-79.⁶⁶⁾

	1973	1974	1975	1976	1977	1978	1979
Regional colleges	22	25	28	29	32	34	35
Universities	32	35	36	36	37	39	40

65) Source: The Employment Situation of Recent University Graduates in Norway. Institute for Studies in Research and Higher Education. Melding nr. 5/1973.

66) Source: Norwegian Students and Graduates in 1979. Institute for Studies in Research and Higher Education. Melding nr. 1/1980.

3.4. Student participation and teaching methods

Student participation in decision making processes is probably more extensive at the regional colleges than at the universities. Regulations on student participation are largely left to the various institutions, and the regional colleges have accepted a relatively high degree of student involvement. Besides, most of the colleges are relatively small and the circumstances are probably more favourable for participation. Students are represented in all important steering committees and governing boards.

The regional colleges have to a large degree experimented with instructional methodology and examinations. The instruction given varies from lectures for 200 students to small seminars and colloquiums. Students are normally involved in curriculum planning and evaluation of teaching programs. A dissertation, which is meant to integrate practical training and theoretical knowledge, is required of most courses. Group work is also encouraged. The colleges are allowed much freedom to experiment with methods of examination and evaluation. This has resulted, for example, in the arrangement of group exams, where a group of students are given a group assignment. Moreover, at some courses the students can decide methods of examination. The members of the examining boards are frequently drawn both from the colleges and the universities in order to establish and maintain contact with teachers at other institutions.

3.5. Pattern of organization

The regional colleges today operate with a relatively high degree of administrative autonomy, allowing each institution freedom to develop their own identity. On the other hand, the Ministry of Education has extended control possibilities through two channels: with the budget, and through approval of courses and regulations for the examinations. By and large,

the autonomy of the regional colleges can be regarded as similar to that of the universities, with one important difference: the regional colleges have formally been subject to control by a regional board with representatives from local authorities. Until 1976 the regional colleges had their own board, but in 1976 a new board was established in each county (with two exceptions) to carry out the coordination and the planning of higher education in the region. This means that the regional colleges now have boards in common with teachers' training colleges, technical colleges, and colleges for social workers in the individual regions. Besides, there are plans to include several other short-term institutions in the board, but not the universities.

The board has nine members, five of which are appointed by the county assembly for four years. Two members are appointed by the staff of the institutions for two years, and two members are students appointed for one year. The main purpose of establishing a common board is to ensure that planning, establishment, and development of all higher education in a region shall be considered as a whole. The board has responsibility for promotion of contact and cooperation between the individual institutions, local and central authorities, and the economic community. Furthermore, the board shall advance proposals for the respective decision making authorities in matters of budgeting, location, goals for the different institutions, as well as to give priorities between various courses. The individual institutions have, however, the main responsibility for educational matters.⁶⁷⁾

The establishment however, of a common regional board for higher education, does not mean that the original proposal for an integrated educational system has been accomplished. The various institutions are still

67) See Reglement for de regionale høgskolestyrene. Fastsatt ved kongelig resolusjon 20. februar 1976.

independent of each other, administratively, educationally, and financially. There also is limited communication between them in educational matters. Except for common regional boards, which do not have much power, the higher educational system is nearly as fragmented as before the launching of the reform proposal.⁶⁸⁾

Most of the institutions also have a rather negative attitude towards the regional boards. The boards are often regarded as bureaucratic and superfluous organizations standing between the individual institutions and the Ministry of Education. However, the Ministry seems intent on extending authority to the boards, regarding this as a decentralization and democratization of decision making authority.

3.6. Vocational education vs. university education

The regional colleges today cover a wide range of subjects. About 50 different courses are offered. (See the Appendix I) They can be divided into three categories:

1. Studies lasting 2-3 years and leading to a regional college degree.
2. Special short-term courses lasting $\frac{1}{2}$ -1 year.
3. University courses of 1-1 $\frac{1}{2}$ years in length.

The courses leading to a college degree may be taken in about 20 different subjects. They are vocationally oriented and interdisciplinary in nature. The special short-term courses are also interdisciplinary, but do not lead to a specific degree. Some of them have been introduced to cover particular needs for continuing and adult education.

68) See articles of Kristian Ottosen and Pål Repstad in Noralv Veggeland (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

As the list in the Appendix shows, many of the courses represent something new and have led to greater diversification within higher education because the subject matter which they cover is not taught at other institutions. Transportation, Tourism, Cultural Work, Small Business Management, Shipping and Business Administration, Mass Media and Communication, Religion and Parish Work, and Environmental Protection and Administration of Natural Resources are typical examples.

University courses taught at the regional colleges are English, Norwegian, German, Finnish, Lappish, Religion, History, Political Science, Mathematics, Physics, Chemistry, Biology and Education. These courses were originally meant to constitute only a small part of the total teaching time. According to table 9, approximately 20% of the students were enrolled in university courses in 1979. This percentage has gradually decreased from 25% in 1973. Whether this is "a small part" according to the original intentions is open to discussion. However, recent statements from the Ministry of Education indicate that the proportion might well increase to 25-30%.⁶⁹⁾ In line with this policy, the Ministry in 1979 approved a half year extension for some of the one year university courses, making them comparable with the three term university courses. According to the original goal, only one year courses should be decentralized to the regional colleges, and the universities have been reluctant to accept this development.

As table 9 shows, by far the most important courses are those lasting 2-3 years and leading to a regional college degree. Throughout the 1970's more than 70% of the students have been enrolled in these courses. "Economics and Business Administration" is the most important of these courses and is taught at seven of the colleges. Almost 30% of the students

69) Underdirektør Dag Omholt, Ministry of Education: "Arbeidsdeling og samarbeid mellom de regionale høyskoler og universitetene". Ting 1979 nr. 3.

were studying this subject in 1979. Judging by the number of applicants it is the most popular course with respect to enrollment. The courses of $\frac{1}{2}$ -1 year length are relatively unimportant, although they have increased from 2% in 1973 to 9% in 1979.

Table 9: Percentage of students at the regional colleges 1973-79 according to type of course.⁷⁰⁾

Types of courses	1973	1974	1975	1976	1977	1978	1979
2-3 years	74	72	70	72	73	73	70
$\frac{1}{2}$ -1 year	2	3	6	6	7	7	9
University courses	25	24	24	22	21	20	21

3.7. Vocational education vs. general education

A main objective for the regional colleges was to offer vocationally oriented courses. However, as a counterweight to the practical orientation, the curricula were to contain elements of general education, called "allmennfag". Today "allmennfag" has a very weak position. The three "allmennfag" courses which originally were recommended do not exist in any of the teaching programs. While the original proposal was 15-20% of the curriculum, we estimate the present proportion to be approximately 5%, though this varies according to college or course. On the other hand, the proposal for "allmennfag" was also built on an interdisciplinary approach, and this perspective is a reality in most of the studies. However, it is not possible to escape the fact that vocational education has gained ground at the expense of general education.

70) Source: Institute for Studies in Research and Higher Education. Unpublished material.

3.8. Vocational and terminal education vs. qualification for further studies

The graduate courses lasting 2-3 years were expected to provide an education preparing directly for the labor market, as well as an education qualifying for further studies at the universities; objectives not easily combined. A clear-cut analysis of goal achievement may not be offered since the degree of vocational orientation is difficult to evaluate, and no single indicator is available. However, the present state may be analyzed by using different indicators such as:

- Content of curricula
- The employment situation
 - a) Extent of employment
 - b) Relevance of education
 - c) Salary
- Transfer

3.8.1. Content of curricula

In the different degree courses lasting 2-3 years theoretical perspectives **have** a strong position. In the various curricula there seems to have been a tendency to emphasize theoretical rather than practical training. This orientation became apparent early in the test period. In 1970 a committee was set up by the Ministry of Education to evaluate the graduate course in Economics and Business Administration. A large proportion of its members came from the regional colleges. The commission recommended that within the frame of two years (4 terms) of study, basic theoretical education should be given priority over vocational specialization. Moreover, a high level of problem analysis and problem solving should be given priority over factual knowledge. Specialization for cer-

tain vocations could instead be concentrated in a possible 5th or 6th term of study. The proposal of the commission was met with general agreement at the regional colleges. This theoretical orientation seems to have become a general pattern.⁷¹⁾ On the other hand, there is no doubt that the original goal for the degree courses, i.e., to give an education qualifying directly for entry into certain types of employment, remains the predominant one.

3.8.2. The employment situation⁷²⁾

The employment rate for graduates from the regional colleges may be considered a measure of the degree of vocational orientation of the different courses. As a basis for comparison, corresponding data on university graduates have been included.

In table 10 the proportion of graduates from universities and regional colleges who were employed six months after graduation is shown. The proportion of university graduates employed, was larger than that of regional college graduates throughout the whole period from 1973-1979. The difference, however, between the two categories seems to have decreased.

71) See Ole Johan Sandvand: Regional Colleges - University Copies or Alternative Institutions? Institute for Studies in Research and Higher Education. Melding nr. 2/1976, p. 85-90.

72) Since 1972 the Institute for Studies in Research and Higher Education has carried out surveys of labour market conditions for graduates from Norwegian universities and other institutions of higher education. The purpose of these surveys has been to give an outline of the labour market situation for new graduates six months after their graduation. A questionnaire has been sent to all new graduates. The response rate is usually 85-90%. With regard to the regional colleges, students at the one year courses and the university courses are not included in the survey. (See table 9).

Table 10: Percentage of graduates from universities and regional colleges 1973-79 who were employed six months after graduation.⁷³⁾

Category of graduates	1973	1974	1975	1976	1977	1978	1979
Higher university degree	72	68	75	73	73	73	77
Regional college degree	47	58	49	55	61	65	59

These figures, however, do not indicate whether graduates from regional colleges have greater problems than university graduates in getting jobs. Some of them may, for example, have continued their studies. Table 11 compares the proportion of graduates from the two types of institutions who applied for jobs and were still without job relevant to degree six months after graduation.

Table 11: Percentage of graduates from universities and regional colleges 1973-79 who applied for jobs and were still without jobs relevant to their degrees six months after graduation.⁷⁴⁾

Category of graduates	1973	1974	1975	1976	1977	1978	1979
Higher university degree	9	9	7	11	9	9	7
First university degree	9	19	20	26	15	13	18
Regional college degree	27	16	29	21	11	14	15

Of the graduates who had sought employment, a larger proportion of regional college graduates were without relevant jobs than those with a higher

73) Source: Institute for Studies in Research and Higher Education. Melding nr. 8/1974, nr. 7/1975, nr. 10/1976, nr. 4/1977, nr. 5/1978, nr. 3/1979, nr. 3/1980. All indicators in this section without references are taken from these sources.

74) A higher university degree (6-7 years) is roughly comparable with a masters degree, and a first university degree (4 years) with a bachelors degree.

university degree. A comparison of regional college graduates with those holding a first university degree shows, on the other hand, no difference of importance. It is worth noting that the difference between higher university graduates and regional college graduates decreased since 1973. A possible explanation may be that regional college graduates have gradually become better known and accepted on the labor market. However, the surveys show that the proportion of graduates from regional colleges having problems procuring relevant work six months after graduating, varies considerably from course to course.

Especially graduates from the courses in Art and Aesthetics, Cultural Work, Language Studies for Translators and Interpreters, and Environmental Studies have had problems. This may be because these courses are new and lacking in professional traditions. In addition, they are mainly directed towards work within local public administration, where limited budgets do not permit the employment of large numbers of graduates.

Graduates were also asked to consider the relevance of their education to the type of work they were doing. The alternatives were "good", "fair" and "bad". Table 12 shows that university graduates with a higher degree are more satisfied with the relevance of their education than the graduates from regional colleges. Yet, in the last three years relatively more regional college graduates have considered the relevance of their education as "good", than have people with a first university degree.

Table 12: Percentage of graduates from universities and regional colleges 1973-79 who considered the relevance of their education to the work they were doing to be good.

Category of graduates	1973	1974	1975	1976	1977	1978	1979
Higher university degree	62	65	62	67	68	68	64
First university degree	50	49	48	44	43	41	44
Regional college degree	43	54	41	53	54	54	56

Table 13 compares the average salary per month for graduates from universities and regional colleges six months after graduation. The table shows that the average salary for regional college graduates was lower than that of university graduates. This is quite normal, considering the difference in length of education. There are, however, great variations. Graduates from the course in Science and Engineering at Rogaland R.C., for example, obtained high salaries.

Table 13: Average salary per month for graduates from universities and regional colleges 1973-79 six months after graduation. N.kr.

Category of graduates	1973	1974	1975	1976	1977	1978	1979
Higher university degree	4 000	4 590	5 380	5 810	6 320	6 750	6 730
First university degree	3 770	4 300	5 060	5 320	5 730	6 280	6 140
Regional college degree	3 210	3 540	4 170	4 630	5 330	5 570	5 670

From 1972 to 1979, the average salary for regional college graduates increased by 98%. The corresponding figures for university graduates with a higher degree and a first degree were both 77%. The differences between regional college graduates and university graduates accordingly decreased. Comparatively, hourly wages for male workers in industry increased by 114%.

3.8.3. Transfer

Today several of the vocationally oriented courses at the regional colleges give credits towards a university degree. By 15 January 1980, 16 out of 17 degree courses (2-3 years) were accepted by the universities as equivalent to 1½ years of university studies.⁷⁵⁾

75) See Nasjonalt koordinerende utvalg for godkjenning av eksamener. Ajourført liste pr. 15.1.1980 over skoler/studier som har vært eller er til vurdering med henblikk på fritak for en valgfri del av en universitets- eller høgskolegrad.

Table 14 shows that throughout the period from 1973 to 1979, approximately 20% of the graduates were still studying six months after graduation. However, several of these persons were continuing their studies in accounting and auditing; consequently, no more than 10-15% of the regional college graduates actually transferred to a university within six months after graduation.⁷⁶⁾ The rate of transfer into the university sector may therefore be fairly low.

Table 14: Percentage of graduates from regional colleges 1973-79 who were studying six months after graduation.

	1973	1974	1975	1976	1977	1978	1979
Regional college degree	20	19	21	22	25	17	24

In 1977 the Institute for Studies in Research and Higher Education carried out a survey of labor market conditions for graduates from universities and regional colleges three years after graduation.⁷⁷⁾ The survey showed that while 96% of the university graduates with a higher degree from 1974 were employed in 1977, the corresponding proportion of regional college graduates was 73%. An additional 22% of the regional college graduates from 1974 were studying in 1977. Of these 12% had studied throughout the period, while 10% had resumed their studies after an interruption. The former group probably transferred to a university. The survey furthermore shows that 40% of the regional college graduates took further education after graduation, some of them probably at a regional college. This pro-

76) Source: Institute for Studies in Research and Higher Education. Unpublished material.

77) The Employment Situation for University Graduates from Spring 1974 Three Years after Graduation. Institute for Studies in Research and Higher Education. Melding nr. 3/1978.

portion varied considerably from course to course. Among graduates from Economics and Business Administration, one third continued their education, whereas the corresponding proportion from the social sciences was close to 60%. This may indicate that the studies in the social sciences only partly qualify students for employment, or that the graduates in these subjects meet with competition from university graduates and from social workers.

In summary, our data shows that graduates with a higher university degree found it easier to get a relevant job, they earned more, and a larger proportion of them considered their education suitable to their work, than that of regional college graduates. The differences, however, between regional college graduates and first university graduates were not so great and have decreased. Second, the rate of transfer into the university sector was fairly low. Nevertheless, there were considerable differences among the various graduate courses within all the indicators mentioned.

3.9. Continuing and adult education vs. full time education

The regional colleges were intended to have important commitments in continuing and adult education. The Ministry of Education stated that as much as 25% of the total teaching capacity could be used for this purpose. A satisfactory measurement of the proportion of resources used for such education requires, however, a relatively precise definition.⁷⁸⁾ According to Law on Adult Education it means teaching of adults who have work experience.⁷⁹⁾ However, in the case of the regional colleges, the Ministry has extended the definition to also encompass part time students ta-

78) A theoretical discussion is given in "Recurrent Education: A Strategy for Lifelong Learning". OECD 1973.

79) See Ot. prp. nr. 7 (1975-76).

king degree courses. Continuing and adult education at the regional colleges is accordingly provided in four ways:

1. Special courses for full time students at the regional colleges.
2. Special courses for part time students at the regional colleges.
3. Special courses for part time students outside the regional colleges.
4. Regular courses at the regional colleges admitting part time students.

As shown in table 15 special courses in continuing education for full time students are established at most of the colleges. In addition to the courses mentioned, some of the other courses lasting $\frac{1}{2}$ -1 year may be attractive for people seeking adult education. The number of students at these courses is, however, relatively small. In 1979 the proportion was approximately 3% of the total number of full time students at the regional colleges.⁸⁰⁾

In 1979 the number of part time students at the regional colleges exceeded 6.600.⁸¹⁾ In table 16 the proportion of part time students in the period from 1973 to 1979 is outlined. The Ministry of Education has recalculated the number of part time students into full time students. The table shows that the average proportion of part time students has been rather constant in the period, varying between 16 and 18%. This proportion, however, varies from college to college. The two colleges in Møre og Romsdal, for instance, have a very low proportion.

80) Source: Institute for Studies in Research and Higher Education. Unpublished material.

81) Source: Ministry of Education: St.prp. nr. 1 (1980-81), p. 83.

Table 15: Special courses in continuing education at the regional colleges in 1979 for full time students.

- Agder R.C.: Social science for health insurance officers (1 year).
Economics and administration for personnel of the Norwegian Telegraph Company (1 year). Health and social administration (1 year).
- Rogaland R.C.: Social science for health insurance officers (1 year).
Social science for welfare staff ($\frac{1}{2}$ year).
- Møre og Romsdal R.C./Volda: Social science for health insurance officers. (1 year).
- Telemark R.C.: Environmental studies for employees in public health sector ($\frac{1}{2}$ year).
- Nordland R.C.: Fishing for teachers ($\frac{1}{2}$ year). Marine resource biology for teachers ($\frac{1}{2}$ year). Social science for health insurance officers (1 year).
- Oppland R.C.: Planning (2 years).
- Finmark R.C.: Fishing for teachers ($\frac{1}{2}$ year).
- Østfold R.C.: Health and social administration (1 year).

Table 16: Number of part time students at the regional colleges 1973-79 in per cent of total number of students.⁸²⁾

Regional college	1973	1974	1975	1976	1977	1978	1979
Agder R.C.	10	9	12	9	13	11	13
Rogaland R.C.	18	19	19	22	23	26	27
Møre og Romsdal R.C./Molde	9	5	6	6	5	5	6
Møre og Romsdal R.C./Volda					6	4	3
Telemark R.C.	20	23	21	20	19	23	15
Nordland R.C.	22	19	17	20	18	26	27
Oppland R.C.	32	36	30	31	31	23	26
Sogn og Fjordane R.C.	-	-	11	21	11	12	20
Finnmark R.C.	-	-	-	-	-	1	10
Østfold R.C.	-	-	-	-	17	24	21
Average proportion	16	16	17	16	17	18	18

Taken as a whole, table 15 and 16 indicate that most of the regional colleges, to a reasonable extent, have fulfilled the original goals for continuing education. About 20-25% of the total teaching capacity seems to have been used for this purpose.

3.10. Teaching vs. research

The regional colleges were to be primarily teaching institutions, although a certain amount of research was regarded as desirable. Today the colleges may also be regarded as research institutions. The Ministry of Education has repeatedly stated that the regional colleges are part of the Nor-

⁸²⁾ Source: Ministry of Education: St.prp. nr. 1 (1974-75 - 1980-81).

wegian research system. They have, since 1978, been represented in the Norwegian Research Council for Science and the Humanities.

A survey of research at the regional colleges in 1979 confirms that such activities have received a relatively conspicuous position.⁸³⁾ A questionnaire was sent to all teachers, and the response rate was 84%. The survey shows that about 60% of the staff carried out research, in the broad sense of the concept, in spring 1979. 200 different projects were registered, of which about 70 were completely or partially financed by external sources. In the course of the period from January 1st 1978 to June 1st 1979, 44% of the teachers had published one or more reports, constituting a total of over 220 publications.

There are no regulations specifying the amount of time to be devoted to teaching and research; this is left to the individual institution. In practice, the teachers have 6-8 teaching hours per week. The rest of their time may be devoted to preparatory work, studies, administration, or research. The teachers were asked to estimate the allocation of time used in 1978-79 for various activities. Table 17 shows that, on average, 55% of staff time was used for teaching activities, 18% for research, 23% for administration, and 4% for other activities. Though there were great variations from teacher to teacher, there were practically no differences between the individual colleges. The average time used for research did not exceed 20% at any of the institutions, and the teaching proportion varied between 50 and 60%.

Unfortunately we have no similar data for the universitites. However, in 1971 a survey was undertaken to obtain better information about how the academic staff at the University of Oslo allocated their working time. The staff was asked to estimate the approximate division of their time during the previous working year (September 1st 1970 to August 31st 1971).

83) See Kyvik, *op.cit.*

The results are presented in table 18. The lecturers are included here, since this group is the one most comparable with the teaching staff at the regional colleges. Although the categories of activities are not quite similar in the two surveys, the results may give some indication of possible similarities and differences in allocation of working time. Table 18 shows that the university lecturers on average used less time for teaching, less time for administration and more time on research than the college teachers. With respect to research, however, the results are sufficiently similar to indicate that research has come to play a rather important role at the regional colleges.

Table 17: Average allocation of working time in 1978-79 for teachers at the regional colleges according to categories of activities.

Category of activity	Percentage
Teaching activities	55
Research activities	18
Administration	23
Other activities	4

Table 18: Average allocation of working time in 1970-71 for lecturers at the University of Oslo according to categories of activities.⁸⁴⁾

Category of activity	Percentage
Teaching and supervision	53
Research (including background reading)	28
Administration	13
Other activities	7

84) Source: Stein Sandbo: Academic Staff at the University of Oslo. A Survey of Activities and Working Time. Institute for Studies in Research and Higher Education. Melding nr. 3/1973. table 14.

3.11. Regional teaching institutions vs. national teaching institutions

3.11.1. Content of curricula

As earlier described, the regional colleges were to meet local needs for higher vocationally oriented education. The courses were to be relevant for the particular social and economic conditions in the various regions. It seems clear that local needs obviously influenced the content of some of the courses. The most typical examples are the following:

- Finnmark R.C. teaches Lappish and Finnish. Finnmark has a large lappish minority and borders on Finland. Many people in the northern parts of Finland and Norway are also ethnically related.
- Nordland R.C. has developed courses in fishing, a most important industry in that region.
- Rogaland R.C. educates specialists in petroleum engineering and engineering management. The oil industry and oil administration are concentrated mainly in this county.

Furthermore, several colleges have courses dealing with problems specific to their region. Some of the university courses also have an element of regional relevance; e.g. "History" stressing local history, and "Norwegian" with special emphasis on local writers. However, the regional orientation of the university courses has been somewhat problematic. It has been very important for the regional colleges to get their courses approved by the universities. In particular, this has been decisive for students wanting to take a higher degree at a university. These constraints resulted in an adaptation to the university courses, and have therefore, to some extent, restricted innovation and regional orientation.⁸⁵⁾

85) See article of Jan Ove Ulstein in Noralv Veggeland (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

3.11.2. Geographical distribution of students and graduates

In addition to covering local needs and requirements, the regional colleges were also to meet particular national needs for qualified manpower. Students all over the country could therefore be given access to the colleges, irrespective of place of residence. Table 19 shows the proportion of students coming from the county and region in which the college is located.

Region is a relatively diffuse concept, sometimes used as an equivalent to county, sometimes defined as a larger area. In table 19 region encompasses the county where the college is situated and the three geographically neighbouring counties. This is a relatively broad definition, and some of the regions overlap each other. The purpose is to examine to what extent students are recruited from the geographical areas surrounding the colleges. (See figure 2).

The table shows that apart from the colleges in Rogaland, Nordland, and Østfold, a relatively large proportion of the students came from parts of Norway outside the county of location. Furthermore, the background material shows that in 1979 students from all the counties were represented in the majority of the colleges. In comparison more than 40% of the students at the University of Bergen, in 1979, came from the county in which the university was located.⁸⁶⁾ According to table 19 only Rogaland R.C. and Nordland R.C. had a substantially higher proportion of local students. This may indicate that most of the colleges are not only covering particular regional needs, they also meet national demands. Some of the degree courses also reflect this trend. Individual colleges have developed courses which are not given at other institutions. The most typical examples are Tourism at Oppland R.C., Transportation at Møre og

86) Source: Studentstatistikk høstsemesteret 1979, University of Bergen 1979.



Figure 2: Map of Norway showing county boundaries.

Romsdal R.C., Mass Media and Communication at Møre og Romsdal R.C., Fisheries at Nordland R.C., and Oil Technology at Rogaland R.C. In addition to covering regional needs, these courses are meeting the national requirements for qualified manpower.

Table 19: Percentage of students coming from the county or the region of the regional colleges in 1979.⁸⁷⁾

Regional college	County	Region
Agder R.C.	33	52
Rogaland R.C.	65	81
Møre og Romsdal R.C.	48	66
Telemark R.C.	30	51
Nordland R.C.	64	84
Oppland R.C.	31	54
Sogn og Fjordane R.C.	42	63
Finnmark R.C.	35	65
Østfold R.C.	60	79
Hedmark R.C.	48	71

87) Source: Central Bureau of Statistics of Norway. Educational Statistics. Universities and Colleges 1979, Table 13. Region is defined as the county where the college is situated and the three geographically neighbouring counties:

Agder: Vest- and Aust-Agder, Rogaland, Telemark

Rogaland: Rogaland, Hordaland, Vest- and Aust-Agder

Møre og Romsdal: Møre og Romsdal, Sogn og Fjordane, Sør-Trøndelag, Oppland

Telemark: Telemark, Aust-Agder, Vestfold, Buskerud

Nordland: Nordland, Troms, Finnmark, Nord-Trøndelag

Oppland: Oppland, Hedmark, Buskerud, Akershus

Sogn og Fjordane: Sogn og Fjordane, Hordaland, Møre og Romsdal, Oppland

Finnmark: Finnmark, Troms, Nordland, Nord-Trøndelag

Østfold: Østfold, Akershus, Oslo, Vestfold

Hedmark: Hedmark, Oppland, Akershus, Sør-Trøndelag

It is worth noting that the number of part time students at the regional colleges in 1979 exceeded 6.600, larger than the number of full time students. Part time students are not included in table 19, and presumably all of them lived close to the colleges. Very few of these students were enrolled in graduate courses, they were mainly taking continuing and adult education. The regional colleges thus meet local educational needs, which otherwise hardly would have been covered. In the rest of this section we shall limit the discussion to the implications of the geographical distribution of full time students and regional college graduates.

The national character of the regional colleges is confirmed with respect to geographical employment of their candidates. Table 20 shows the proportion of employed graduates from regional colleges who were working in the county or in the region six months after graduation. The figures are averages from 1977, 1978 and 1979. The table indicates that, except for Rogaland and Nordland, a rather small proportion of the graduates were employed in the county or in the region in which they had studied. This is partly due to the fact that many students came from other parts of the country and may have obtained employment in their home region. 46% of the regional college graduates in 1979 were thus employed in the county of their original residence six months after graduation.

Table 20: Percentage of employed graduates from regional colleges in 1977, 1978, and 1979 employed in the county or in the region six months after graduation.

Regional college	County	Region ⁸⁸⁾
Agder R.C.	13	27
Rogaland R.C.	67	75
Møre og Romsdal R.C.	22	35
Telemark R.C.	13	25
Nordland R.C.	44	74
Oppland R.C.	9	18

88) See note 87.

The regional relevance of the education is to some extent questioned by the figures in the next table. It shows the proportion of graduates in the years 1973-79 who evaluated the employment opportunities as "good" in the Oslo-area and in the rest of the country respectively. Table 21 shows that there was a considerable difference between graduates from universities and regional colleges with respect to their assignment of job opportunities in the Oslo-area. Only 32% of the university graduates with a higher degree and 16% of those with a first degree from 1979 considered the employment opportunities as "good", whereas the corresponding figure for regional college graduates was 50%. Nevertheless, there was no significant difference between the two groups with respect to their evaluation of job opportunities in the rest of the country. This is somewhat paradoxical. Contrary to what would seem reasonable, the regional college graduates had more confidence in the labor market in the Oslo-area, than in the rest of the country.

Table 21: Percentage of graduates from universities and regional colleges 1973-79 who assessed job opportunities as "good" in the Oslo-area and the rest of the country respectively.

Category of graduates	<u>The Oslo-area</u>						
	1973	1974	1975	1976	1977	1978	1979
Higher university degree	31	28	18	17	22	27	32
First university degree	31	19	11	9	8	15	16
Regional college degree	49	46	31	35	49	46	50
	<u>The rest of the country</u>						
Higher university degree	25	20	11	14	23	33	32
First university degree	42	31	14	9	13	24	30
Regional college degree	16	18	9	14	23	23	23

Still table 22 shows that a smaller proportion of regional college graduates were employed in the city of Oslo six months after graduation, than that of university graduates. Thus, a larger part of the graduates from the regional colleges was working in other parts of Norway than was the case with the university graduates. Nevertheless, the percentage of regional college graduates between 25 and 30 working in Oslo seems to be quite high, taking the purpose of the colleges into consideration. In our opinion these data therefore confirm the national character of the education at some of the colleges.

Table 22: Percentage of graduates from universities and regional colleges 1974-79 who were employed in Oslo six months after graduation.

Category of graduates	1974	1975	1976	1977	1978	1979
Higher university degree	41	39	36	37	37	39
First university degree	36	31	36	32	29	28
Regional college degree	28	30	27	28	25	31

3.12. Regional service institutions vs. autonomous institutions

An important goal for the regional colleges was to stimulate social and economic life in the districts. In particular the role of research in areas of relevance to the region was emphasized. To what extent have the colleges lived up to these expectations? Have academic requirements and the need for institutional autonomy hampered involvement in local affairs? We will evaluate the regional colleges as local service institutions along three dimensions: the research policy, patterns of external contact, and cooperation with public and private institutions in the region.

3.12.1. The research policy

The regional relevance of research projects has been examined in a study of R&D at the colleges in 1979.⁸⁹⁾ The study shows that approximately 1/3 of the projects were of direct relevance to the region, 1/3 were of indirect relevance, and 1/3 had no regional relevance at all. This means that 1/3 of the research projects may be said to have been of some service to the region, and 1/3 might be of more general interest to the local community. Interviews with staff at the colleges seem to confirm this regional orientation in research activities. Generally speaking emphasis was put on local problems and issues, so that the institutions could develop into a source of expertise for their local districts.

On the other hand, the staff maintained that the colleges also ought to engage in more general research in order to extend the teachers' research competence. Some of the subjects also had a national relevance and research could not be limited only to regional problems. It was considered important that the colleges should not be degraded to local service institutions, thus losing professional and critical perspectives on their role in society. The study also shows that the projects were not limited to applied research and experimental development. The teachers themselves classified 27% of the projects as exclusively basic research. However, the bulk of the projects were undoubtedly oriented towards more applied research. 50% of the projects were classified as applied research and experimental development, while 23% of the projects had elements of both basic and applied research.

3.12.2. Patterns of external contact

Patterns of external contact may give valuable information on which institutions are most important for the performance of R&D at the regional

89) Kyvik: *ibid.*

colleges. Table 23 shows the number of teachers who had regular contact with other institutions in connection with their research projects. The most important institutions, in this respect, were universities and research institutes involving 68% of the staff. Besides, nearly 30% of the teachers stated that they were in regular contact with foreign research institutions. The table furthermore shows that more than 40% of the teaching staff had contact regularly with the local administration. This figure seems to be relatively high and may be an indication of the role of the colleges as local service institutions.

Table 23: Percentage of regional college staff in 1979 who had contact regularly with institutions in connection with R&D.

Type of institution	Percentage
Other regional colleges	22
Universities/research institutes	68
Foreign research institutes	28
County or communal administration	42
Private enterprise within the region	13
Organizations within the region	14
Central administration	20
Others	10

3.12.3. Cooperation with regional institutions

In three of the counties, Rogaland, Nordland, and Møre og Romsdal, research organizations have been established and attached to the regional colleges. The organizations are established and partly financed by the respective counties. The purpose is to initiate and develop R&D on local problems and issues. The research organizations are partly integra-

ted with colleges, and the main intention is to promote cooperation between researchers from various institutions at the regional level. This model is also planned in some other counties.

With respect to funds the various research projects at the colleges were mainly dependent on financial support from sources outside the region. In 1979 only 10% of the external funds granted to R&D projects at the colleges came from regional institutions. However, this pattern varied from discipline to discipline. Projects within natural science and economics received more financial support from regional sources than projects within the social sciences and the humanities. The reason for this difference is probably that the former disciplines offered services that were more applicable for the local community than those of the social sciences and the humanities.

3.13. Conclusion

Generally speaking, the regional colleges are regarded as a successful innovation in the Norwegian educational system. The attraction to young people, coupled with the fact that most of their students find employment relatively soon after graduation, may be said to be proofs of their right to exist. However, the regional colleges today are not in every respect the kind of institutions they were intended to be. In the following we shall briefly sketch our impression of the actual outcome and shall draw some conclusions based on our discussion of goals and conflict-dimensions in chapter 2.

1. First, the regional colleges are not a homogenous group of institutions. The disparities between the colleges may be said to be more striking than the similarities, both with regard to size and types of courses offered. Rogaland R.C. and Agder R.C. are much larger

than the other institutions. This is not only due to the fact that the colleges have been established at different times, but also a result of the great differences between the regions with respect to size of population.

2. Although the regional colleges are regarded as a successful innovation, their importance within the system of higher education in Norway should not be overrated. The regional colleges have only a small proportion of the total number of students (6-7%), and of the total number of students outside the university sector, only 15-20% are enrolled at the regional colleges.
3. The regional colleges seem to have found a balance between university education and alternative types of courses. Only 20% of the students are enrolled at university courses, and recent statements from the Ministry of Education indicate that the proportion may well increase to 25-30%. Approximately 70% of the students are enrolled at courses lasting 2-3 years and leading to a regional college degree. The colleges have undoubtedly brought about a diversification in higher education and offer several new courses not taught at other institutions.
4. The original idea that curricula should contain elements of general education ("allmennfag") as a counterweight to vocational aspects, has greatly weakened. Vocational education has undoubtedly gained ground at the expense of general education. Although the original proposal for "allmennfag" indicated 15-20% of the curriculum, we estimate the present proportion to be approximately 5%, though this varies.
5. Among regional college graduates, the rate of transfer into the university sector has been fairly low. On the average no more than 10-

15% have continued their studies at a university within six months after graduation. However, there are considerable differences between graduates from various courses.

6. The employment situation for most regional college graduates seems to be satisfactory. Of graduates seeking employment, regional college graduates usually have more problems finding relevant work than those with a higher university degree. The difference is not great, however, and has decreased during the last few years.
7. With respect to continuing and adult education, most of the regional colleges seem to have reasonably fulfilled the original objective, about 20-25% of the total teaching capacity seems to have been used for this purpose. Some of the colleges, however, have definitively not come up to expectations in this field.
8. The most significant deviation from the original intentions is perhaps found in the important role of research. Contrary to the universities, the regional colleges were to be primarily teaching institutions, but today may also be regarded as research institutions. At present, the differences between teachers at the universities and the regional colleges, with regard to allocation of working time to teaching and research, are not so great.
9. The regional colleges are both regional and national teaching institutions. Several colleges have courses dealing with problems specific to their region, whereas others offer courses not taught at other Norwegian institutions. Student statistics show that apart from the colleges in Rogaland, Nordland and Østfold, a relatively large proportion of the students come from parts of Norway outside the county or region of location. Except for Rogaland R.C. and Nordland R.C. a rather small proportion of the graduates are employed in the county or region in which they studied.

10. The regional colleges certainly offer services to the local community. Several R&D projects concentrate on local problems and issues. Moreover, some counties have established a research organization attached to the local college. The regional colleges, nevertheless, have been reluctant to become exclusively local service institutions. In some of the subjects the regional colleges have a national responsibility, and it has furthermore been considered important that the colleges keep an independent professional and critical perspective on their role in society.
11. The proposal of the Ottosen-Committee for an integration of all short-term higher education in each region into one organization has not been adopted, or carried through. Even though regional boards for higher education have been established, the system is nearly as fragmented as before the reform proposal.

As we have shown most of the goals for the regional colleges have been fulfilled, although in some cases there are differences between original objectives and actual outcomes. From a theoretical point of view, it is just as interesting and important to explain why things happen as planned, as it is to explain why intentions and results do not coincide. As discussed earlier, we assume that these answers can only be found through an analysis of the goals of the reform coupled with a study of the implementation process. We suppose that the development of the regional colleges is a result of an interplay between formal goals and various other factors: The relation between means and ends; the dispositions of the implementing organs; the actions of interest groups; general structures of society; and economic, social and political conditions. In the next chapter the process of implementation shall accordingly be analyzed.

IV THE PROCESS OF IMPLEMENTATION

4.1. Introduction

As described earlier, the goals for the regional colleges were manifold. Not one, but many objectives were to be implemented. In this chapter the following themes will be examined:

1. The development of teaching programmes.
2. The decline of general education.
3. The implementation of continuing and adult education.
4. The development of research.
5. The question of integrating all short-term higher education in each region.

The implementation of the various objectives may be regarded as a series of relatively loosely coupled processes, e.g., the question of "allmennfag" was not considered in relation to the development of research or continuing education. The various processes of implementation will, accordingly, be approached one by one.

First, some general developments which are not tied to any of the specific goals will be attended to: trends in higher education, administrative and financial arrangements, and recruitment of teachers. Thereafter, the themes mentioned above will successively be examined. First, the development of each implementation process will be sketched. Then the forces in the process or the factors which have determined the particular development will be analyzed. In conclusion, some further questions concerning the process of implementation will be discussed.

4.2. General trends in higher education

The 1960's were a period marked by strong economic growth and general optimism with regard to an ever increasing need for higher education. During the 1970's the situation changed dramatically. Economic growth was replaced by stagnation; a situation which also influenced the view on higher education. A stagnation in enrollments and in new positions at the universities could partly be ascribed to general economic conditions, and partly to new trends in educational policy. Table 24 shows the number of students enrolled in Norwegian universities and regional colleges from 1965 to 1979. While university enrollments were doubled between 1965 and 1975, the number of university students had not increased for the five last years. The interest in university studies, especially in the arts, has diminished. This may be caused by rather sombre forecasts about the future labour market for arts graduates. Besides, the University of Oslo closed the entrance to several of the arts courses in 1973. The growth since 1975 has occurred within the regional colleges and the other short-term institutions. The present educational policy seems to strengthen this development.⁹⁰⁾

Table 24: Number of students enrolled in universities and regional colleges 1965-1979.

Type of institution	1965	1970	1975	1976	1977	1978	1979
Universities ⁹¹⁾	19750	30850	40750	40700	39600	39200	40600
Regional colleges ⁹²⁾	-	550	4200	4400	4500	4950	5700

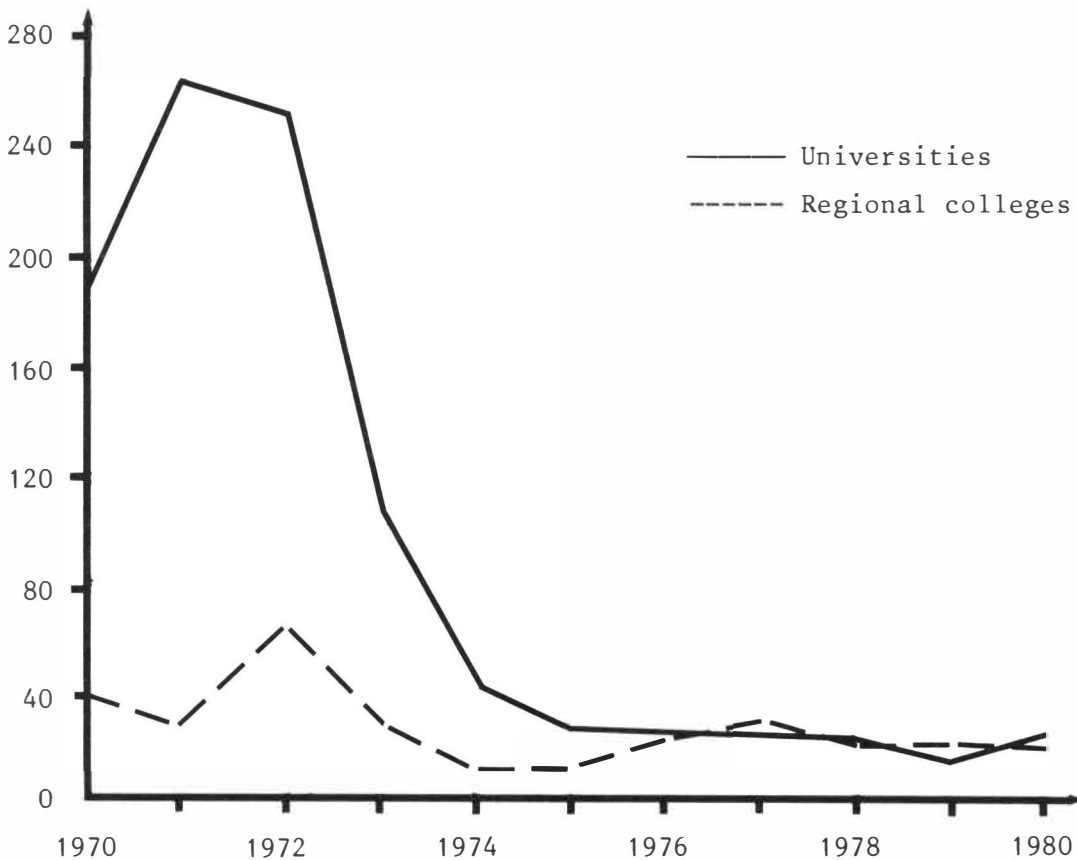
90) Source: St.prp. nr. 1 (1979-80). Budget proposal from the Ministry of Education.

91) Source: Institute for Studies in Research and Higher Education.

92) Source: Ministry of Education. The Ministry has recalculated and included part time students in the number of full time students.

Figure 3 shows the number of new academic positions at Norwegian universities and regional colleges in the period from 1970 to 1980. The figure illustrates the change in higher educational policy since 1972. Owing to the general economic situation, and because of priorities for shorter and vocationally oriented education, the universities have received very few new academic positions. The opposite trend prevailed at the end of the 1960's and the beginning of the 1970's. The regional colleges have, however, persistently benefited from political support in Parliament; where the colleges have been regarded not only as a matter of educational policy, but also as an essential part of regional policy.

Figure 3: New academic positions at Norwegian universities and regional colleges 1970-1980.



4.3. Administrative arrangements

Within the Ministry of Education, a regional college section was established to attend to matters of administration. In addition, a central advisory board on regional college matters (Sentralutvalget for distriktshøgskolene) was established in 1969 with members from various institutions and society at large. Four of the eleven members were students, three from the new colleges, and one from a university. The advisory board was to be concerned with development within the colleges, partly by appointing committees and working groups to prepare curricula in new subjects.

At the local level, each college would have a board of seven members. Two of the members were appointed directly by the Ministry, whereas other members were selected by the college faculty (1), student body (1), and the county (3). This board was meant to have responsibility for management and planning. It would also have its own secretariat and director. In addition, it was decided to establish regular meetings of the college leaders consisting of the presidents of the various short-term institutions in each region. The director of the regional college board would function as a secretariat at this meeting. However, both the Ministry and Parliament strongly emphasized that these meetings were not to assume a managerial role in relation to the various institutions. The purpose of the meeting was to be informative and consulting.

The Ministry of Education would have the formal responsibility for initiating teaching programs and the final authority in matters concerning pattern of organization, examinations, awarding of degrees, and the qualifications of the staff. The internal organization of the regional colleges was left mainly to the various colleges themselves. No common pattern was laid down; each institution would develop an

organizational structure appropriate to local conditions and demands. An element of openness in the organizational structure was thus introduced to allow the regional colleges to adapt continuously to a changing environment.

The regional colleges were given extensive freedom in deciding the content and structure of their work. The formal organizational pattern gave room for institutional autonomy in important areas. In addition, the emphasis on the idea of decentralization set limits for ministerial intervention.

From 1 January 1975, the regional colleges became permanent institutions. The central advisory board on regional college matters was disbanded at the end of the same year; an event which further emphasized the integration of the colleges into the ordinary administrative routines of the Ministry of Education.

4.4. Financial arrangements

The regional colleges were to be state institutions, but Parliament decided that the local authorities should provide the necessary buildings for the colleges. The running costs were to be covered by the Ministry of Education. This system was established in the hope that each region's desire for advancement would encourage the speedy development of the project.

In some regions college buildings were built by the commune or the county, in others buildings were rented for the purpose. In Rogaland, the regional college even received funds from a local shipowner to erect a research library. The central advisory board on regional

college matters expressed their satisfaction with the local commitment,⁹³⁾ and the Ministry stated that the lack of buildings had not curtailed the development of the colleges.⁹⁴⁾ All the regional colleges emphasized, however, that the system of regionally paid premises was not satisfactory. The development of the individual colleges could in this way be decided by the economic means of the various counties and communes, putting the richer regions in a better position than the poorer ones. The universities were 100 per cent state-financed, and this, it was argued, ought also be the case for the regional colleges. These arguments were successful, and with the transition to permanent institutions in 1975, the costs for premises became the responsibility of the state.

4.5. Recruitment of teachers

The Ottosen-Committee did not thoroughly discuss the question of the recruitment of staff, but proposed that criteria for qualification should be comparable to those of the universities. However, this was not to be a general requirement. Only for those teaching university courses should this be an indispensable condition.⁹⁵⁾ The Ministry of Education, on the other hand, claimed that the same standard should generally apply to regional college teaching as university teaching. Appointment of well qualified teachers was regarded as necessary, and external appointment committees ought to evaluate applicants. The Ministry maintained that qualifications other than ability and experience from research should also be taken into account, but such criteria

93) Sentralutvalget for distriktshøgskolene: Bidrag til melding til Stortinget på grunnlag av innstillingene fra videreutdanningskomitéen og den foreløpige prøvedrift med distriktshøgskoler. Utarbeidet i 1972.

94) St.meld. nr. 17 (1974-75). Om den videre utbygging og organisering av høgre utdanning, p. 99.

95) The Ottosen-Committee. Report nr. 2, p. 37.

were not discussed.⁹⁶⁾ When establishing the first regional colleges, Parliament decided that qualifications for appointment to teaching positions were to be the same at the regional colleges as for similar positions at the university. The professional evaluation of applicants practised at the university was also regarded as useful for the regional colleges. However, research competence would not constitute the only criteria for employment; teaching experience would also count.⁹⁷⁾

Formal rules for the appointment of teachers to the regional colleges were given by the Ministry of Education in autumn 1969.⁹⁸⁾ In cooperation with the Ministry the colleges were to appoint a professional commission of three members to evaluate the qualifications of the applicants. On the basis of the commission's report, the board of the regional college in question was to present its proposal to the Ministry, which was in turn to make the formal appointment. Thus, the Ministry's participation in the recruitment of the staff was to be purely formal.⁹⁹⁾

In 1973, the colleges were given the power to engage their own staff.¹⁰⁰⁾ The appointment of professional commissions was also left to the colleges. Of the three members one could be from the regional college in question, the two others normally from a university. In addition, formal criteria for qualification were provided for governing the appointment of teachers. Not only should experience from research be taken into account, but also experience from teaching, administration, and practical work. This regulation was an attempt to prevent a one-sided emphasis on academic merits.

96) St.prp. nr. 136 (1968-69).

97) Innst. S. nr. 308 (1968-69), p. 595.

98) Stillingsbeskrivelse for undervisningspersonell i distrikthøgskolen. Ministry of Education, 31.10.1969.

99) Ingjald Ørbech Sørheim: "The Norwegian Regional Colleges", in "Short-Cycle Higher Education. A Search for Identity". OECD 1973, p. 72.

100) Midlertidige regler om fremgangsmåten ved besettelse av undervisningsstillinger ved distrikthøgskolene i prøveperioden. Ministry of Education, 18.1.1973.

An analysis of the recruitment of regional college teachers indicates, however, that traditional scientific/academic criteria have been the main basis for selection, while teaching and occupational experience have been given decidedly less merit.¹⁰¹⁾ This does not imply that university standards have been kept up in all fields. Teachers have largely been recruited from universities and research establishments. People from industry and business have been a much smaller, yet still numerically significant group.

The Ministry of Education introduced two kinds of teaching positions at the regional colleges in 1969: college lecturer (høgskolelektor) which was to be equivalent to university lecturer, and "undervisningsleder" which would be a department head. The latter position did not have a counterpart at the universities, but the Ministry stressed the importance of having this leading position for each discipline. This was considered necessary for maintaining the professional level. In the course of the first few years, the hierarchical structure was changed. (See table 25). The initiatives came mainly from the regional colleges themselves. In 1972, positions for research fellows were established to promote the recruitment of teachers, and in 1973 a differentiation of the lecturer group was introduced. As at the universities, a qualified teacher could be a first-lecturer. This was done to provide better possibilities for advancement. And in 1979 the position of associate professor (høgskoledosent) was introduced.

101) Ole Johan Sandvand: Regional Colleges - University Copies or Alternative Institutions? Institute for Studies in Research and Higher Education. Melding nr. 2/1976.

Table 25: Teaching positions at the regional colleges 1970-1980.¹⁰²⁾

Type of position	1970	1972	1974	1976	1978	1980
Associate professor	-	-	-	-	-	7
"Undervisningsleder"	8	22	22	30	30	31
Lecturer/First-lecturer	47	121	183	212	263	308
Research fellow	-	8	12	14	14	15
N	55	151	217	256	307	361

4.6. The development of teaching programs

In the first years, development work was conducted along two lines. First, the central advisory board on regional college matters appointed committees and work groups to prepare new curricula for the various disciplines. Second, the individual colleges also pursued innovative projects and the staff spent a considerable amount of time planning new teaching subjects. The central advisory board considered much of its work as transitory; as staff numbers grew the development function would be gradually taken over by the individual institutions. Apart from the first courses established, the idea and the design of new programmes originated in most cases within the colleges themselves. The regional colleges put forward proposals for new disciplines to the Ministry of Education, for which, in turn, the latter evaluated the need.

Generally speaking, the different courses were introduced in the following order: a vocationally oriented, two-year course in economics and business administration; some first-year university courses; and new types of short-term, job-oriented courses. The reason for this

¹⁰²⁾ Source: Ministry of Education. St.prp. nr. 1 (1970/71) - (1979/80).

particular order of development was the speed of the establishment of the colleges. The urgency created a necessity to do what could be done in the shortest possible time. There was thus a certain need for employing existing, or easily available solutions, when it came to giving content to the new educational system.

When establishing the first regional colleges, only one study programme was available: a two-year course in economics and business administration. The Norwegian School of Economics and Business Administration had prepared a framework for a two-year course of study. The Ministry of Education then worked out a detailed curriculum which was introduced at the regional colleges in Rogaland, Agder, and Møre og Romsdal.¹⁰³⁾ Most of the colleges subsequently established have also begun a course in economics and business administration.

However, the colleges soon took the initiative to introduce university courses as well. A stated objective was that the colleges should give some elementary university education, but the speed of the introduction met opposition in the central advisory board. The board maintained that priority ought to be given to development of courses different from those given in the existing institutions. Diversification and vocationally oriented education was regarded as desirable, and the sudden introduction of a series of university courses could possibly give the colleges a too academic profile.

There were several reasons for this early pressure for university courses. Firstly, some first-year university courses were, at that time, already being taught in central cities in a few regions. A university was responsible for the courses and for the final examinations, but they were administrated by local organizations. An incorpo-

103) See St.prp. nr. 136 (1968-69) Vedlegg 1.

ration of these activities into the regional colleges was regarded as natural. Besides, the universities were in favour of these courses being taken over by the colleges. Another explanation for the preference for university courses inside the regional colleges could be found in the ambitions of the institutions to grow faster. The planning and realization of real innovations would require more time and resources than simply copying. Thirdly, a significant factor in this connection may have been the university ambitions in Rogaland and Agder. Both counties competed with Tromsø over the location for the fourth university in Norway. Tromsø won and got its university in 1968. Neither Rogaland nor Agder, however, gave up the hopes and plans for a university.

In later years university courses have only rarely been established. The emphasis has been placed on the development of new courses. This is partly due to a relatively restrictive policy in the Ministry of Education, and partly because of a priority in the colleges themselves for alternative education. Several of the first-year university courses have, nevertheless, been extended by a half year and have been approved as equal units to similar courses at the universities. However, this extension has taken place without the allocation of more resources to these subjects.

As earlier described, there is little doubt that the regional colleges so far have been regarded as a successful innovation. Several new subjects have been created, the majority of them being interdisciplinary. The colleges represent a new tradition within the educational system, and young people obviously regard the institutions as an alternative to university education. In other words, the regional colleges managed to bring about a diversification in higher education in Norway. But how? The answer is not obvious. Several factors may have contributed to this development. Possible explanations will, therefore, never be more than reasonable hypotheses.

However, one factor seems to be of particular importance, the lack of institutionalized traditions. The introduction of alternative types of higher education took place within a new organizational framework, both at central and local level. At the Ministry of Education a regional college section was established to attend to matters of administration. In addition, a central advisory board was appointed to be concerned with development within the colleges. It is likely that these solutions had positive effects on the reform. The alternative to a new office in the Ministry would have been to place the development work in an existing office. In this case, the regional colleges might have been regarded as one of several other ordinary administrative tasks. There would have been the risk that traditional bureaucratic routines would hamper development work. The solution chosen was therefore probably more fruitful for innovation. Moreover, the appointed head of the regional college section proved to be a significant factor. Ingjald Ørbeck Sørheim, a former student-politician and secretary of the Ottosen-Committee, was enthusiastic for the reform, and obviously a driving force in the development process.

But probably far more important in this connection was the creation of new educational institutions. The Ottosen-Committee was of the opinion that innovation could proceed more rapidly within a new organizational framework. An alternative solution would have been to integrate the new study programs in the university system or develop them as new courses at some of the existing short-term institutions. However, in this case the rigidity and opposition in the old institutions would have to be overcome. The universities and the teachers' training colleges in particular are organizations with well-established structures, traditions, and interests. It is generally recognized that they have changed slowly since their foundation and have had difficulties in adapting to changes in the environment. Moreover, these pre-existing institutions possessed strong professional organizations that, in all likelihood, would have exerted influence on the development of the new courses of study. It was there-

fore felt that the reforms necessary in higher education could only be brought about by structural innovation and organizational change of a fairly radical nature. The creation of regional colleges was accordingly a way of avoiding established traditions and structures that could have hindered the development of new subjects and courses.¹⁰⁴⁾

Another factor of some importance may be the relatively high degree of autonomy on the part of the regional colleges. The ideas behind the establishment of most of the new courses originated within the colleges themselves. The colleges put forward proposals for new subjects to the Ministry of Education which then evaluated the need for the courses in question in a national context.

The delegation of power and responsibility to the regional colleges has been a deliberate policy from the Ministry. Creating new courses and teaching programs requires time and a process of searching, and this process has, to a large extent, taken place at the colleges themselves. This decentralized process has presumably had positive effects and has probably led to a higher degree of innovation and experimentation than otherwise would have been possible. Allowing the design and development of new courses to be initiated within the colleges has led to participation on the part of the teachers. They have identified with the courses and felt responsible for keeping the quality of the teaching at a high level.

4.7. The decline of general education

The Ministry of Education followed up the intentions of the "allmennfag"-commission and made certain that the courses proposed were prepared. In spring 1972, a course for each area of specialization had been worked out: "natural resources and environmental protection" with natural sci-

104) See Ingjald Ørbeck Sørheim: The Norwegian Regional Colleges, in: Short-Cycle Higher Education. A Search for Identity. OECD 1973.

ence, "planning" with social sciences, and "cultural politics" with practical esthetics.¹⁰⁵⁾ These courses and the introduction of general education at the regional colleges were discussed at a seminar with representatives from all the colleges and from the Ministry of Education in March 1972. The responsibility for the implementation and further development of "allmennfag" was then left to the individual colleges.

On 2 March 1973, an ad hoc commission was set up by the Ministry of Education in order to evaluate the state of "allmennfag". Furthermore, the commission would put forward proposals for further action to ensure the implementation of "allmennfag" at the individual colleges. The report was submitted to the Ministry on 6 June 1973.¹⁰⁶⁾ The commission stated that "allmennfag" had a diffuse and accidental position at most of the institutions. Although a general and critical perspective was integrated in several of the ordinary courses, the responsibility for the teaching of "allmennfag" was highly dependent on the individual teacher. Particular courses in general education had only to a minor extent been established. Nor had the courses which were prepared in "natural resources and environmental protection," "planning," and "cultural politics" been introduced at the colleges.

The commission put forward some proposals for further development of "allmennfag":

1. 15% of the teaching capacity should be used for "allmennfag".
2. A group of teachers responsible for "allmennfag" ought to be formed at the individual colleges.

105) Kurs i naturressurser og miljøvern (Øystein Dalland, Oddvar Haugland, Tor Næss, Øyvind Skar). Kurs i planlegging (Harald Baldersheim, Kåre Rommetveit, Per Stava). Kurs i kulturbryting og kulturpolitikk (Otto Hageberg, Jarle Simensen, Sigurd Skirbekk, Per Bakke).

106) Innstilling fra koordineringsgruppen for allmennfag. Fra en gruppe oppnevnt av kirke- og undervisningsdepartementet 2. mars 1973.

3. A working group responsible for the implementation of "allmennfag" ought to be established in the Ministry of Education for the rest of the test period.
4. "Allmennfag" ought to be integrated in the individual job-oriented courses.
5. "Allmennfag" should not provide practical knowledge, but promote insight and a critical perspective.

The central advisory board on regional college matters discussed this report on the 15 June 1973. Some of the members were rather surprised by the weak position of "allmennfag" at the colleges, and it was emphasized that the various regional college boards were responsible for the implementation of "allmennfag" according to its intentions.

According to the last proposal, "allmennfag" was to supplement the core curriculum taking no more than 15% of the total study time. Still, this was found to be a disproportionately large part of the study program. Regional colleges were developed to provide short-term education lasting from one to no more than three years. "Allmennfag", therefore, came into strong conflict with the requirements of the various disciplines and was eventually regarded as irrelevant to the primary goals of these specific programs.¹⁰⁷⁾

Both the priorities given to full time studies and the limited time available played decisive roles in the pressing of "allmennfag" into a peripheral position in the curriculum. A further cause for the decline of "allmennfag" may be found in the actual goal priorities themselves. That is, the original proposal for introducing "allmennfag" must be understood as an attempt to maintain the critical approach of the 1960's. At that time it was regarded as essential for students to acquire a reflective perspective on their education and their own role in society. The

107) See Lars Løvlie: Allmennfag og fagkritikk. Article in Noralv Vegge-land (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

idea of "allmennfag" was conceived in the spirit of the student revolt and must be explained as a result of a special social situation. Now that the days of student protest are past, there are few who complain that "allmennfag" in general has received little attention.

Lastly, the original priorities given to "allmennfag" were not widely shared, hence there were few who were willing to fight for its implementation. Generally, neither teachers, nor students have been especially committed to the role of "allmennfag". In the first years the Ministry of Education made some attempts to follow up the original intentions. However, the Ministry later left this matter to the individual colleges. This passive role is also in line with the general policy of the Ministry towards the regional colleges. The institutions are given a high degree of autonomy which allows each college the freedom to develop its own identity in educational matters.

4.8. The implementation of continuing and adult education

As in other matters, the colleges have been given the freedom to give priorities to full time vocational education and continuing education respectively. Initiative and responsibility have rested with the individual institutions. The Ministry has, of course, had the possibility to earmark a certain proportion of the regional college budget to adult education, but such an arrangement would have come into conflict with the principles of decentralization of power and responsibility to the colleges.

The original objective for continuing and adult education, i.e., that as much as 25% of the educational capacity could be used for this purpose, was repeated by the Ministry of Education in reports to Parliament in 1973 and 1974. In the first report, the Ministry additionally stated

that adult education should be regarded as an ordinary task for the staff and would not involve extra pay.¹⁰⁸⁾ In the second report the Ministry emphasized that such education should be placed on equal footing with vocational education.¹⁰⁹⁾ That is to say, that continuing and adult education at the regional colleges should be regarded as an integral part of the teaching program.

Since 1977, the boards for higher education in each region have had the overall responsibility for the development of continuing education at higher levels. The regional boards now also have means at their disposal for the distribution of funds for adult education at the various short-term institutions. This is a result of a special law on adult education which was approved in 1976. This law gives recognition to continuing and adult education as an important part of the higher educational system in Norway. Funds for such education have, accordingly, increased. About 10 mill. N.kr. were allocated over the state budget in 1969, whereas this amount constituted more than 250 mill. N.kr. in 1979. In comparison, 114 mill. N.kr. were allocated over the state budget in 1979 to all the regional colleges.¹¹⁰⁾

As described earlier, most of the colleges seem to have fulfilled, to a reasonable extent, the original intentions. However, some of the colleges have definitively not come up to expectations in this field. Why then this difference between the colleges? In a study of adult education at the regional colleges, Kjøde has examined the implementation of this objective at six of the colleges.¹¹¹⁾ Only two of the institutions had internal goals for the proportion of continuing education. At Telemark R.C. 25% of the teaching capacity was intended to be used for this purpose. At Agder R.C. the goal was less ambitious: 10% in 1978 and 15%

108) St. meld. nr. 66 (1972-73) p. 94.

109) St. meld. nr. 17 (1974-75) p. 61.

110) Source: Ministry of Education.

111) Jacob Kjøde Jr.: Voksenopplæring ved distriktshøgskolene. Møre og Romsdal distriktshøgskole 1979.

in 1980. But also the other colleges regarded adult education as an important part of their tasks.

Agder R.C. has gone further than the other colleges in organizing continuing and adult education. In 1971 an office was established to administrate teaching for part time students. However, the results did not meet expectations, and in 1973 an ad hoc committee was set up to evaluate the role of the college in adult education. This initiative led to the establishment of a permanent committee for continuing and adult education. In addition, three offices were established in other parts of the region to promote the geographical distribution of teaching programs. However, relevant courses for part time students developed slowly. In 1976, another ad hoc committee was established to suggest proposals for the future advancement of adult education. The committee proposed that the former organizational pattern should be maintained, but stated that the college faculty (Høgskoletinget) ought not have the final decision authority with respect to the proportion of continuing and adult education. In times of scarce economic resources, experience had shown that courses for part time students had received a lower priority than that of the established studies.

At Møre og Romsdal R.C. an ad hoc committee was set up in 1971 to evaluate the need for adult education in the region. The committee put forward proposals both for an internal organization at the two colleges and for a permanent regional board which could coordinate continuing and adult education in the county. The report was discussed by the regional college board in 1974. The board did not come to any decision on the question of internal organization of teaching for adults, and stated that a permanent regional board was not necessary to carry out these tasks. In 1976 another ad hoc committee was created to improve the contribution within adult education. This initiative led to the establishment of a

permanent committee which was to coordinate the internal organizing of courses for part time students at each of the two colleges.

At the other regional colleges, only minor efforts have been undertaken to organize adult education. The responsibility for development and implementation of courses for part-time students has been left mainly to the various sections. However, as shown in Table 16, Agder R.C. and the two colleges in Møre og Romsdal are those which have the lowest proportion of part time students. Opposite to what might have been expected, the colleges which have done most to create formal administrative bodies, seem to have fallen short compared with the other institutions.

Kjøde argues that possible explanations for the differences between the colleges cannot be found in administrative arrangements. He therefore calls attention to differences in geographic conditions. Some of the institutions are located in relatively densely populated areas, others in sparsely populated areas. In some regions transportation is easy, other regions have a topography which makes travel difficult and time-consuming. Rogaland R.C., being the most characteristic example of a college with a geographical advantage, has a population of 150.000 people within a comparatively short distance. In 1979 the college had more than 1.500 part time students.

The two colleges in Møre og Romsdal, on the other hand, are situated in a county split up by several fjords and mountains. These colleges also have relatively few part time students. Accordingly, there seems to be a relationship between geographical factors and the proportion of part time students. However, Agder R.C. complicates this picture. More than 100.000 people live within a reasonable travelling distance from this institution. Nevertheless, Agder R.C. used a smaller proportion of its teaching capacity for adult education than most of the other colleges. Kjøde, therefore, argues that geographical factors alone cannot explain the differences between the colleges.

Although Kjøde admits the importance of geography, he presumes that staff attitudes and motivations towards adult education are of greater significance. For one thing, advancement in the regional college system is highly dependent on scientific criteria. Engagement in research gives more credit than teaching of adults. Secondly, scientific production gives more prestige than continuing and adult education, both for the individual teacher and the institutions as a whole. And thirdly, teaching ordinary students is probably more interesting than adult education.

Attitudes obviously differ among colleges. Agder R.C., for example, has as a goal that 15% of the teaching capacity will be used for part time education for adults in 1980, whereas Telemark R.C. has decided that this proportion will constitute 25%. However, the arguments mentioned above are likely to refer to all the teachers and all the colleges. Besides, Kjøde's data do not provide any empirical evidence for a relationship between staff motivations and the proportion of part time students. His conclusion is therefore highly tentative.

A reasonable explanation of the differences between the regional colleges is therefore difficult to give. Both geographical factors and attitudes toward adult education probably contribute to an understanding of variations among the colleges. However, other factors may also be of some importance in this connection.

4.9. The development of research

The attitude toward research at the regional colleges has gradually changed since their establishment in 1969. In contrast to universities, the regional colleges were to be primarily teaching institutions, although Parliament stated that a certain amount of research was desirable. Today the colleges are more or less accepted as research institutions; how-

qualified lecturers were permitted to advance to first-lecturer, and in 1979, the regional colleges were given associate professors. Associate professorships were introduced to recruit and keep teachers with high research qualifications.¹¹⁵⁾ Research has also been encouraged because the colleges have, since 1978, been able to hire substitutes for teachers doing research while on sabbatical leave.

Several arguments have been presented to justify the necessity of **doing** research at the regional colleges.¹¹⁶⁾ These arguments have come both from the Ministry of Education and from the colleges themselves:

1. The teaching at the colleges will improve if the staff engages in research. It is important that the college teachers keep informed of recent research results in their own field. In this respect, a passive contact with research institutes and reading of scientific literature are not regarded as satisfactory. Research and teaching are closely linked, and the best way to keep informed is personal engagement in research.

2. The students will learn more if they come into contact with research. It is regarded as important that students are allowed to do some project work under the supervision of an experienced researcher. The collecting and analyzing of data, even at a simple level, promotes a critical understanding of the nature of research. In a world of rapid change, students today must be motivated and enabled to engage in life-long learning. Contact with research is a way of acquiring positive attitudes in this direction.

115) St.prp. nr. 1 (1978-79). Ministry of Education, p. 86.

116) See Kyvik: *ibid.*

3. The colleges will recruit and keep good teachers if they can offer research possibilities. With respect to academic staff the regional colleges must compete with universities and research institutes. The colleges feel they might recruit only the second best teachers and lose the best ones if the staff has bad possibilities for doing research.
4. The regional college staff is qualified for doing research and this competence should be used. Professionals are lacking in many fields and important tasks need to be solved. It would be a waste of valuable know-how not to use the research competence within the regional colleges.
5. Some disciplines at the regional colleges are new and have to produce research results themselves. An important task for the regional colleges was to diversify higher education in Norway. Some new disciplines have been created: e.g., Transportation, Tourism, and Small Business Management. These courses are not taught at other institutions. In subjects such as these the staff has to produce research results themselves in order to cover the need for relevant teaching material.
6. It is important to carry out research on regional problems and issues. It was a stated objective that the regional colleges should offer services to the local community. It is regarded as essential that regional problems are attended to by means of research. In this connection it has been maintained that research on local issues ought to be carried out by researchers living in the region. They have better knowledge about local conditions and may more easily identify with the problems of the region.

a university. Norway has 19 counties; only six of these were to form a region of their own. The core of each regional college was to be located in a study center, recruiting 1.500 to 4.000 students. However, also existing institutions located elsewhere in the region were to be included in the regional college. The main arguments for this integration were that a study center would offer students a broader choice of courses; a broader and better milieu for the teaching staff; and a better utilization of buildings, libraries, and welfare installations.

As we know, the question of integration was postponed, and the regional colleges were established without any formal ties to the other short-cycle institutions in the regions. Nor did the Ministry of Education decide on the number of regions, but considered the 12 proposed as a preliminary division.

What has then happened to this matter since the establishment of the first colleges? The central advisory board on regional college matters supported the idea of an integrated college system. In a report to the Ministry of Education in 1972, the board stated that short-term higher education in each region ought to be located at a study center. Only under special circumstances should this pattern be deviated from. On the other hand, the board emphasized that the future pattern of location ought not be tied to the 12 regions proposed by the Committee.¹¹⁷⁾

In October 1972 the Labour Party government was replaced by a liberal coalition. This government continued the work with a report to Parliament on the future structure of higher education.¹¹⁸⁾ However, contrary to the labour government, the new coalition did not agree to the proposal

117) Sentralutvalget for distriktshøgskolene: Bidrag til melding til Stortinget på grunnlag av innstillingene fra videreutdanningskomitéen og den foreløpige prøvedrift med distriktshøgskoler. Utarbeidet i 1972.

118) St.meld. nr. 66 (1972-73).

from the Ottosen-Committee for an integrated regional college system. On the contrary, it proposed that the various institutions, e.g., teachers' training colleges, technical colleges, and social work colleges, should keep their autonomous position and be located in different parts of each region. This attitude must not only be regarded as recognition of the individual institutions and their distinctive character; the emphasis on a decentralized location pattern was as much an expression of the general regional policy carried out by this government. Likewise it was the policy of the labour government to build up centers of a certain population size in each region. In addition, the liberal coalition changed the number of regions from 12 to 17. It stated that each county should constitute a region for higher education with the exception that Vest-Agder and Aust-Agder county form one region, and likewise Oslo and Akershus.

The general election in 1973 brought the labour government back into power. The report to Parliament prepared by the previous coalition was withdrawn and replaced by a revised version.¹¹⁹⁾ However, the labour government retained the division into 17 regions. This was seen as natural, as the division in counties was used for most administrative purposes. Besides, this policy was in line with the persistent reform work within local administration in Norway. The counties were strengthened both politically and administratively in this period. However, contrary to the previous liberal coalition, the government stated that the various short-term institutions should as far as possible be concentrated in one geographical area. The idea of the Ottosen-Committee for an integrated regional college system was accordingly maintained. The proposal implied a decentralization of power from the Ministry of Education to a common organization for higher education in each region.

119) St.meld. nr. 17 (1974-75).

work colleges. The Council of Presidents at the technical colleges' in a letter to the Ministry of Education 23 August 1972, expressed approval to cooperation between the various short-term institutions in each region, but stated that this cooperation ought to be carried out between autonomous colleges.

As previously stated, the integration of higher education at the regional level was primarily a labour government idea. The resistance to integration was supported by the other political parties in Parliament and by the liberal coalition government in 1972-73. This resulted in a compromise: the establishment of regional boards in 1976 to carry out the coordination and the future planning of higher education in each region. Even though the boards did not have much power, most of the institutions had rather negative attitudes towards them. In addition, several colleges in Oslo and Akershus asked to be excepted from this administrative arrangement. Some of them argued that they cover a national need for qualified manpower. For that reason they found it unnatural to be subject to a board with the purpose to evaluate and plan regional needs.¹²¹⁾

In addition to resistance on a professional basis, organizational integration of the various short-term institutions would lead to practical difficulties. The colleges operated under the different conditions. Different administrative traditions, different teaching methods, and great variations in number of staff and students would impede an integration process. The speed of the introduction of the reform therefore made it easier to establish the regional colleges as separate institutions. But the fact that the question of integration also was postponed complicated the present integration procedure. During the test period the regional colleges appeared as autonomous institutions with

121) See St.meld. nr 56 (1978-79).

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121) See St.meld. nr 56 (1978-79).

distinctive professional and administrative characteristics different from those of the teachers' training colleges, the technical colleges, and the social work colleges. Integration of all short-term higher education in each region and establishment of regional study centers, therefore, seems more problematic than ever before.

In addition, the regional colleges soon sought to be compared with the universities and not with the other short-term institutions. Several of the subjects taught at the colleges gave special qualification not covered by other educational institutions. These courses were national in character and both students and teachers maintained that 2-3 years of study was too short a time to receive a satisfactory education. Some of the colleges were therefore working consciously to expand their courses to make them comparable in standard although different in content from higher degree courses at the universities.¹²²⁾

The speed of the introduction of the reform in 1968-69 led to a postponement of a thorough discussion of the role of the regional colleges in the future structure of higher education in Norway. This was partly because Parliament regarded the establishment of the new colleges not only as a matter of higher education, but also as a part of the regional policy question. Besides, the changing of governments in this period led to repeated revisions of the preparatory work in the Ministry of Education. On 29 June 1968, Parliament decided that a report on the development of the regional college system should be submitted for discussion as soon as possible. This report was long in coming. Not before 6 June 1975, was the report discussed in Parliament. The regional colleges had then existed for seven years.

122) See Noralv Veggeland (ed.): Tidsskifte i høgre utdanning. Distriktshøgskolen: Fag og forskning i et regionalt perspektiv. Universitetsforlaget 1979.

V CONCLUSION

5.1 Some theoretical considerations

In the last chapter we discussed the implementation of the regional college reform with reference to five different processes:

- 1) The development of teaching programs.
- 2) The decline of general education.
- 3) The implementation of continuing and adult education.
- 4) The development of research.
- 5) The question of integrating all short-term higher education in each region.

We have attempted to identify important factors that can explain why some of the goals for the colleges have been fulfilled, as well as factors that can explain why some goals have only partly been attained. We shall now try to draw some conclusions that may have some theoretical bearing. Although the conclusions below are limited to the implementation of the regional college reform, we assume they may also be of some relevance in other contexts. Naturally, the application of these conclusions to other policy areas must be tentative. We note the following observations:

1) It was easier to bring about innovation in a new organization than within a well-established organizational framework.

The goal for short-term higher education as an alternative to the traditional universities was implemented in new institutions that were not hampered by traditions. The proposal for an integrated system of higher education at the regional level was, on the other hand, intended to be carried out within the then existing structure of short-term higher education. The former objective succeeded, whereas the latter was more or less abandoned due to resistance from the established colleges and the relevant professional organizations. Although the two processes are not parallel, they illustrate the advantage of carrying out innovation in an organization without well-established structures, interests, and traditions.

2) The professional background of key persons engaged in the implementation process was decisive for altering one of the original goals.

We have asserted that the recruitment criteria, which favoured teachers with research experience, were the main reason for the development of the regional colleges into research institutions. Research has developed from being a secondary objective to an important task for the colleges. This fact illustrates that during the implementation process the background and attitudes of the staff may influence and change initial objectives.

3) The delegation of responsibility for implementing goals to individual institutions led to variations in the degree of goal achievement.

The responsibility for the implementation of continuing and adult education was left to the colleges. As a result, the proportion of resources used for this purpose varied considerably among the individual institutions. This illustrates what often happens when partly autonomous institutions implement central policies or objectives. The policy is implemented in various ways which often lead to different degrees of goal achievement.

4) Original intentions were influenced by the social situation in which they were formulated. When social conditions changed, so too, did goals.

The goal for general education or "allmennfag" was put forward, mainly in response to the student revolt and its related critique of a capitalist and growth oriented society. Radical university groups feared that the regional colleges would become too technocratic. As the ideas and goals of the student revolt faded, the emphasis on "allmennfag" declined. Thus, intentions in one period of time can become passé in another.

5) The fulfillment of one objective was dependent on the suppression of another goal.

"Allmennfag" was found to take a disproportionately large part of the curriculum and came, accordingly, into strong conflict with disciplinary demands. We have argued that if the regional colleges were to fulfill the goal of giving vocationally oriented higher education within a period of study of no more than two years, this invariably meant reducing the time spent on general education. In cases with conflicting goals, one objective may therefore have to be given priority to another in order to achieve the overall policy goal.

6) The lack of clear objectives allowed persons responsible for the implementation of objectives to advance their particular interests.

Apart from the specification that the regional colleges were to be first and foremost teaching institutions, the relation between teaching and research was not clarified. Consequently, those teachers recruited with a research background soon pursued research as an ordinary function, and today research constitutes an important task for the colleges. This development illustrates that unclear goals may provide opportunities for persons or groups to promote their particular interests and demands during the implementation process.

7) Clear objectives were no guarantee for goal achievement.

It is a common belief that clear goals facilitate policy implementation. This is obviously true, but it is important to have in mind that formal goals are only one of several factors that influence the outcome. In this case, the role of "allmennfag" was quantitatively defined, and yet not attained.

8) Actors who lost out at the policy formulation stage continued their struggle in the phase of implementation.

This was the case with Rogaland and Agder. The two counties lost in the competition with Tromsø over Norway's fourth university. However, they both have persisted in trying to obtain a university by expanding their regional colleges. This fact illustrates that politics may continue even in the phase of implementation.

* * *

We have seen that the development of the regional colleges is the result of an interplay among several factors. True, formal goals have been the basis for the implementation of the educational reform; nevertheless, other factors have also affected the development of the colleges: dispositions of the implementing bodies, actions of interest groups, and economic, social, and political conditions.

Furthermore, we may note that differences between original intentions and actual outcomes have not necessarily meant unsuccessful implementation. Even though the original goal for "allmennfag" has not been attained, and even though the regional colleges have developed unintendedly into research institutions, the colleges themselves have in certain ways benefited from these developments.

It is important to have in mind that objectives often are formed without detailed knowledge of their consequences. Decisions leading to

public goals and plans are not necessarily rational. The classical theory of rational man presupposes that the decision-maker has complete knowledge of alternatives and their consequences, that he is capable of ordering his preferences, and that he can choose the appropriate means to reach the desired results. This theory has been attributed to individual human beings, but as March and Simon have shown, there are strong cognitive limitations to individual rationality.¹²³⁾ Public policy, however, is unlikely to result from the choice process of one individual. Policy formulation is usually the result of interaction among actors with different interests, goals and strategies. Yet, the theory of rational man is often attributed to groups of individuals within a common decision system. But, if there are indeed limits to individual rationality, then these will apply as well for organizations.¹²⁴⁾ Imperfect ideas may therefore produce unsatisfactory results if the goals are not changed or reformulated through experience.

Goals should thus not necessarily be viewed as static. Goals often change over time, partly because of weaknesses in the ideas themselves, partly because of the fact that ideas change, and also because of new circumstances. We therefore think that Majone and Wildavsky point to an essential problem when they state that:

"Implementation is evolution. Since it takes place in a world we never made, we are usually right in the middle of the process, with events having occurred before and (we hope) continuing afterward. At each point we must cope with new circumstances that allow us to actualize different potentials in whatever policy ideas we are implementing. When we act to implement a policy, we change it."¹²⁵⁾

123) James G. March and Herbert A. Simon: "Organizations". John Wiley and Sons, New York, 1958.

124) Fritz W. Scharpf: "Interorganizational Policy Studies: Issues, Concepts and Perspectives", in Hanf and Scharpf: Op.cit.

125) Giandomenico Majone and Aaron Wildavsky: "Implementation as evolution". Policy Studies Review Annual, 1978 Vol. 2, p. 114.

Implementation thus often implies both the carrying out of goals as well as the reformulation and re-design of original intentions and plans. This observation, however, should not distract us from the fact that there are various possible courses of action for the implementation of public policy and that some of them attain intended goals better than others. An important task in the study of implementation processes must therefore be to bring forth the important conditions for an effective implementation of goals.

5.2 The future of the regional colleges

The regional colleges still have wide political support in Norway, owing to the fact that the development of the colleges, now as earlier, is regarded as a question both of educational and regional policy. Development of non-urban regions is still an important political issue, and in recent years short-term and vocationally oriented education have been given priority over traditional university education.¹²⁶⁾

What then will be the future of the regional colleges? The development of the institutions will, among other things, depend on the general economic situation and on the future priorities within the higher educational system. Considerable conflict is latent in the colleges' present relationship with each other, with the university sector, and with other institutions within the regional higher educational system.

126) The establishment of the University of Tromsø constitutes an exception in this respect. As with the regional colleges, the development of this university was important in relation to regional policy. See Karen Nossun Bie: Creating a New University - The Establishment and the Development of the University of Tromsø. Institute for Studies in Research and Higher Education. Melding nr. 3/1981.

First, there are claims both for more regional colleges and for enlarging those that already exist. Counties without a regional college express their desire to have one. Such regional requests have often proved to carry considerable weight in Norway, because all counties claim equal rights to public benefits. The established regional colleges, on the other hand, demand more teaching positions be created in order to improve the milieu in individual fields of study. Thus creation of new regional colleges will come into conflict with plans to expand the existing institutions.

Second, the regional colleges wish to attain equality with the universities with regard to working conditions and professional development. In matters concerning curriculum, however, they wish to retain their own identity. This will probably result in demands for extending the period of study and for offering, in some subjects, a higher degree. Rogaland R.C. and Oppland R.C. have already developed four-year study programs. The universities, on the other hand, are resisting this development fearing a competition for scarce resources.

A third possible area of conflict will probably be the future relationship between the regional colleges and the other short-term institutions, especially the teachers' training colleges and the technical colleges. Whereas the Ministry of Education regards all these institutions as equal, the regional colleges demand equality in certain respects with the universities.

Finally, based on this study, we predict the following future developments of the regional colleges. The differences among the individual schools and among the various fields of study are likely to remain. The institutions will probably continue to vary greatly in size, mainly because they are situated in regions with differing populations, and also because they were not all established at the same point of time.

Some of the colleges might receive university status, although such a development cannot be taken for granted. Some fields will gain more prestige and have longer periods of study than others, partly because they represent a special national educational opportunity. In all likelihood, the regional colleges will become complex educational institutions, offering a mixture of long- and short-term vocationally and more theoretically oriented education. Continuing and adult education will probably receive more attention at the regional colleges, not necessarily because the schools want it, but because it probably could lead to expansion in times of tighter educational budgets. In such matters the regional colleges have shown more flexibility than the universities; they are smaller, more adaptable institutions. The structure of the courses and the methods of instruction make the integration of continuing education into the regional colleges easier than at the universities.

One thing at least seems certain; the regional colleges have not yet reached their "point of destination". The colleges are still developing; how they will evolve and what role they will come to play in the future of Norwegian higher education remains to be seen.

APPENDIX I

SUBJECTS TAUGHT AT THE REGIONAL COLLEGES IN THE SPRING TERM 1980

I STUDIES LASTING 2-3 YEARS AND LEADING TO A REGIONAL COLLEGE DEGREE

Economics and business administration (2 years)

Agder, Rogaland, Møre og Romsdal/Molde, Telemark, Nordland, Østfold, Hedmark.

Shipping and business administration (2 years)

Agder.

Electronic data processing (2 years)

Agder, Møre og Romsdal/Molde, Østfold.

Public administration (2 years)

Agder.

Analytic chemistry (2 years)

Agder.

Language studies for translators and interpreters (3 years)

Agder.

Welfare and social work (2 years)

Møre og Romsdal/Volda.

Religion and parish work (2 years)

Møre og Romsdal/Volda, Finnmark.

Community structure and planning (2 years)

Møre og Romsdal/Volda.

Mass media and communication (2 years)

Møre og Romsdal/Volda.

Transportation (2-3 years)

Møre og Romsdal/Molde.

Fishery economics (2 years)

Nordland.

Social work (3 years)

Nordland.

Tourism (2 years)

Oppland.

Art and aesthetics (2 years)

Rogaland.

Social studies (Optional specialization in recreational counselling, cultural organization, public management, personnel management) (2 years)

Rogaland.

Science and engineering (Optional specialization in petroleum engineering, engineering management, computer science, technical environmental protection) (3 years)

Rogaland.

Environmental protection and administration of natural resources (2 years)

Telemark, Sogn og Fjordane.

Cultural work (2 years)

Telemark.

Mathematics and economics (2 years)

Telemark.

Graduate studies in accounting and auditing ($\frac{1}{2}$ year)

Agder, Rogaland, Møre og Romsdal/Molde, Telemark, Nordland.

Graduate studies in electronic data processing within business administration (1 year)

Rogaland.

II SPECIAL SHORT TERM COURSES LASTING $\frac{1}{2}$ -1 YEAR

Fishery resource biology (1 year)

Nordland.

Physical education (1 year)

Finmark.

Social studies (1 year)

Nordland, Sogn og Fjordane.

Small business management (1 year)

Oppland.

Political science (1 year)

Oppland, Møre og Romsdal/Molde.

Environmental science (1 year)

Telemark, Sogn og Fjordane.

Social science for health insurance officers (1 year)

Agder, Rogaland, Nordland, Møre og Romsdal/Volda.

Economics and administration for personnel at the Norwegian Telegraph Company (1 year)

Agder.

Health and social administration (1 year)

Agder, Østfold.

Fishing for teachers ($\frac{1}{2}$ year)

Nordland, Finnmark.

Marine resource biology for teachers ($\frac{1}{2}$ year)

Nordland.

Planning (2 years)

Oppland.

Environmental studies for employees in public health sector ($\frac{1}{2}$ year)

Telemark.

III UNIVERSITY COURSES OF 1-1½ YEARS IN LENGTH

Norwegian (1-1½ year)

Agder, Rogaland, Møre og Romsdal/Volda, Telemark.

German (1 year)

Møre og Romsdal/Volda.

English (1-1½ year)

Agder, Rogaland, Møre og Romsdal/Volda, Telemark.

Finnish (1 year)

Finnmark.

Lappish (1 year)

Finnmark.

Religion (1 year)

Møre og Romsdal/Volda.

History (1-1½ year)

Møre og Romsdal/Volda, Nordland, Oppland, Rogaland, Telemark.

Mathematics (1 year)

Agder, Møre og Romsdal/Molde, Telemark, Rogaland.

Studies in physics and chemistry (1 year)

Sogn og Fjordane.

Studies in biology and chemistry (1 year)

Sogn og Fjordane.

Combined studies in scientific subjects (1-2 years)

Agder.

Studies in education (1-2 years)

Oppland.

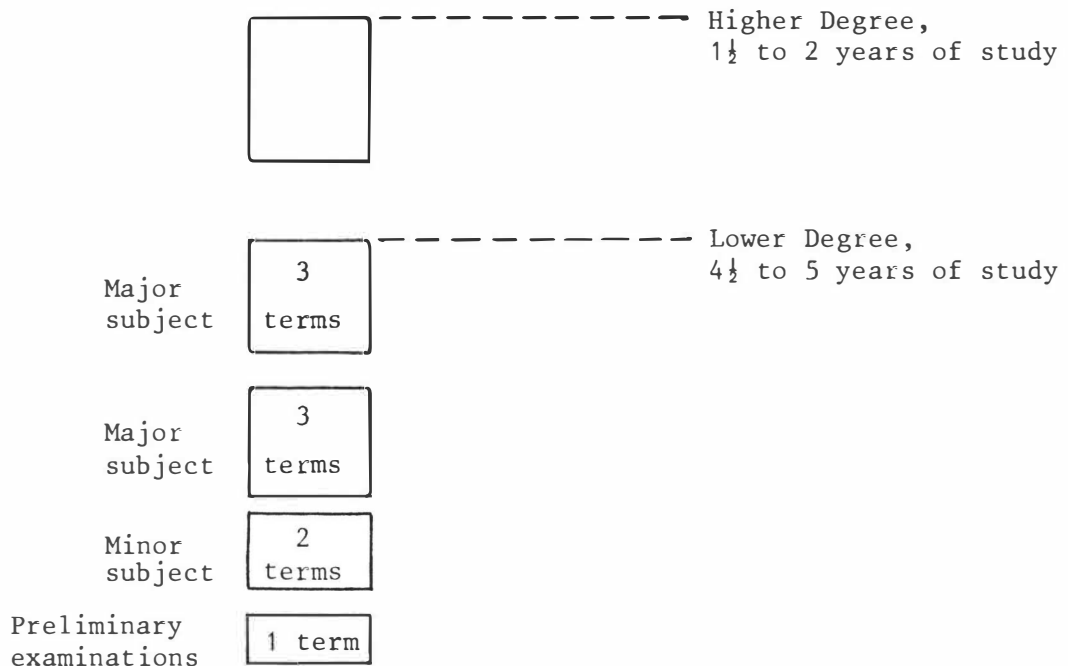
APPENDIX II

THE NORWEGIAN UNIVERSITY DEGREE SYSTEM

A lower and higher degree may be awarded in the different areas of study. The lower degree consists of examinations in three different subjects, two major and one minor subject.

A major subject is usually stipulated to take one and a half years (three terms) of study, a minor one normally one year (two terms). A higher degree is awarded on the basis of an additional one and a half to two years' study of one of the major subjects taken for the lower degree. A higher degree course usually involves a thesis and written and oral examinations.

The system may graphically be presented as follows:



The sequence of the subjects constituting the lower degree is immaterial. However, within the arts and social sciences students normally take only one subject at a time. Within the pure and applied sciences a point system is used for different courses within individual subjects, and students frequently take courses from different subjects simultaneously. Smaller courses within these sciences may also be taken together with subjects from the arts or social sciences. A minor subject may be extended by an additional term of study and additional examinations to become a major.

A lower degree is awarded in arts, social sciences, or pure and applied science respectively, depending on the number of subjects belonging to the respective faculties. Thus candidates with two subjects from the Faculty of Arts is awarded a degree in Arts. Subjects and professional examinations taken outside the universities, e.g., at the regional colleges, are in many cases considered equivalent to the subjects studied for a lower degree at the university. Thus students may combine subjects from different faculties and from different university faculties and non-university institutions. They are accordingly awarded what is called an inter-faculty lower degree. Thus the system is flexible, also in the sense that students may step in and out of the higher educational system and combine examinations taken at widely different points in time for a final degree.

A higher degree is awarded in arts, social sciences, or pure and applied sciences, depending on the faculty to which the higher degree subject belongs.