The view that the professional preparation of elementary and secondary teachers is inadequate is widespread and probably justified. Responsibility for this inadequacy rests with many, but we shall focus on the role of academicians. University academicians, though they have kept their educator-colleagues at a disrespectful distance, have allowed educators' students to attend academicians' classes. The result has been that future teachers have shared the mediocre education accorded most undergraduates, and they have had bad examples of teaching set before them. With some exceptions, participation in educational endeavors by the universities has been peripheral. We need to drastically alter the relationship between the universities, on the one hand, and teacher education and the schools on the other. The major requirements are: 1) an organization of knowledge that provides insight into discipline relationships; 2) institutional changes that encourage participation by academicians in educational efforts; 3) a change in faculty attitudes and interests; and, 4) new concepts, methods and arrangements for teaching subject matter to teachers. (Three innovative plans for educating teachers are described.) (Author/JLB)
THE ROLE OF ACADEMICIANS IN THE EDUCATION OF TEACHERS

by Irving Morrisett
"THE ROLE OF ACADEMICIANS IN THE EDUCATION OF TEACHERS"

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CHAPTER 2

THE ROLE OF ACADEMICIANS IN THE EDUCATION OF TEACHERS

The Problem

The view that elementary and secondary teachers are inadequately prepared to teach the subject matter with which they are concerned is widespread and probably has substantial justification. The teachers themselves would be the first to concur with that observation. Professional competence is a matter of concern to professional teachers, and uneasiness with subject matter in the classroom turns to resentment against the system that placed them -- unprepared -- in their vulnerable position. In retrospect, the teacher, once launched, realizes that his university courses were not designed for his vocation and that many of them are simply irrelevant to the teaching task.

We will not attempt to document the nature and degree of the inadequacy of teachers; this would be an undertaking that would require an extended dissertation on educational goals, the possibility of achieving those goals in the light of present knowledge and resources, and overall measures of the performance of teachers. We will merely cite briefly some indicators of that inadequacy and proceed to analyze reasons for the inadequacy that we believe exist and to suggest some corrective measures. In particular, this chapter will focus on the role of the universities and the academicians in educating teachers and in providing leadership to the elementary and secondary schools.
The evidence of inadequate preparation of teachers includes the feeling of many teachers that their education left much to be desired; the conviction on the part of many school systems that their teachers need retraining as soon as they begin teaching; and the common criticism made by university teachers that high school graduates coming to college are poorly prepared with respect to knowledge, communication skills, and reasoning ability. It also includes a large volume of literature on "the failure of the schools" which strongly implies a failure of our education of teachers. This literature is mostly anecdotal, often poignant, and on the whole quite convincing. John Holt's How Children Fail and James Herndon's The Way It Spozed To Be are outstanding examples.

NDEA institutes provide other evidence of a common conviction that teachers are inadequately prepared. The institutes were intended to bring teachers up to date in their academic specialties, but turned out to have more of a remedial than an up-dating function. "Teachers are woefully under-educated" was a common assessment by institute directors and assessors.

Criticism of our schools and of the education of teachers is not new. What is new is a growing conviction that something should be done and can be done about the problem. For a hundred years after the middle of the nineteenth century, we were concerned with establishing the opportunity and the facilities for elementary and secondary education for everyone. Since the end of World War II our affluence has given us leeway to think


about the quality of education -- about something beyond having a seat in a classroom for every child who shows up at school.

The "knowledge explosion" is another reason for taking a new look at the education of teachers and children. Whether or not there has been a drastic increase in the rate at which knowledge is accumulating, it seems likely that we have reached a point where the transmission of knowledge to new generations calls for a more dynamic and effective method of education than the concept of filling empty heads with selected facts. There has been considerable impetus toward new concepts of learning in recent years, with emphasis on the basic structures of knowledge and on "learning how to learn." Such ideas are in part a response to the challenge of the "knowledge explosion."

The new emphasis on the basic structures of knowledge and on learning how to learn is, however, more than a mere tactic for dealing with increasing quantities of knowledge. It is a new philosophy and strategy of learning, previously reserved for the graduate students, graduate faculty, and research scholars who comprise the inner circle of academia. The implementation of this emphasis in elementary and secondary schools will certainly require rethinking our methods of educating teachers and children.

Responsibility for the inadequacy of our education of teachers and of our schools rests with many groups -- notably with educators, academicians, school administrators, taxpayers, and the teachers themselves. We shall focus here on the role of academicians. Academicians bear a particular responsibility they have failed to admit the educators into the fellowship of the university, they have refused to assume any special responsibility for the education of teachers, they
have failed to assume any responsibility for the care and feeding of elementary and secondary schools or even to find out about their needs and problems, and they have joined the crowd of unthinking and unconstructive critics of our schools of education and our elementary and secondary schools.

The Present Role of the Universities

Kenneth Clark has leveled the broad and devastating charge that "American colleges and universities . . . have not fulfilled their responsibility and obligation to develop and train human beings with a morally relevant and socially responsible intelligence." Included in this broad indictment is the accusation that the universities have not provided enlightened leadership to the public schools.

Most universities have never seen leadership in public education, including the education of teachers and the intellectual enrichment of the school system, as a major responsibility. Schools, colleges, and departments of education are tolerated like country cousins by the academic departments. Future teachers at the undergraduate level are lost in the anonymity of all undergraduates. Programs for masters degrees, which are the zenith of academic endeavor for the great majority of elementary and secondary teachers, are often treated with disdain by professors because they divert graduate faculty time from doctoral programs.

Elementary and secondary teaching is not highly esteemed. Studies of the prestige of various professions have shown public school teaching

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far down the list. University teaching, on the other hand, is near the top. Within the university, however, professors of education are less esteemed than professors of academic subjects; they share the low status of the future teachers whom they teach at least as much as they share the high status of their fellow professors.

Seventy-five years ago, the situation was quite different. Teachers shared high professional status along with lawyers and a few other occupational groups who were well-educated relative to the average population. The prestige of teachers has declined throughout the twentieth century, as many other professional groups -- engineers, doctors, scientists, and others -- became better educated and better established as persons with the ability to get important jobs done.

While the average number of years of education of teachers increased, the average number of years of education of the general population and of other professional groups increased still faster. It is likely, though difficult to demonstrate, that the quality of teacher education also increased less than the quality of other professional education and of general education. At any rate, elementary and secondary teachers are no longer considered to be persons with superior education. On the contrary, they are looked upon as the products of an inferior part of the professional training establishment -- the schools of education.

Today the question is raised as to whether teaching is a profession -- a field with a common body of skills, techniques, and organized knowledge. Such a question would not have been raised at the turn

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of the century.

Whatever other causes are responsible for the low state of education as a profession, university academicians must bear a share of the blame because they have not admitted educators to full membership in the university. The ideal of the university, says Robert Hutchins, "is to see knowledge, life, the world, or truth whole . . . . Everything in the university is to be seen in the light of everything else. This is not merely for the sake of society or to preserve the unity of the university. It is also for the sake of the specialist and experts, who, without the light shed by others, may find their own studies going down blind alleys." Our universities fall far short of that ideal with respect to communications among scholars in all the disciplines; but that fact does not lessen the onus on the academicians for failing to admit the educators to the full fellowship and discourse of the university, such as they are. The academicians should, in fact, have a special regard for discourse with the educators, because they should share a common concern for educating most of them youth; but / do not, and that is one important reason for writing this chapter.

While the academicians have kept their educator-colleagues at a disrespectful distance, they have allowed the educators' students to attend the academicians' classes. The result has been unhappy on two counts: the future teachers have shared the mediocre education accorded most undergraduates in large universities, and they have had bad examples of teaching set before them.

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The general mediocrity of undergraduate teaching at universities is a subject of frequent comment. Eminent professors frequently are attracted and challenged by research tasks and consulting jobs, in which they use their expertise to solve problems; only rarely are they attracted and challenged by the problems of teaching. The larger the graduate schools become, the more undergraduate courses are taught by graduate students; some graduate students are naturally good teachers, but they are paid to do good graduate work, not good teaching. The professors who meet classes are better teachers than the graduate students because they know more. It is possible that they are also better teachers because they have had more experience, but this possibility rests on the dubious hypothesis that mere practice improves pedagogy. Since academicians have been exposed to little or no formal study of pedagogy, are not known for research or systematic observations of the practices and outcomes of pedagogy, and disdain their colleagues who do attend to pedagogy, it seems unlikely that they will become experts in, or even mediocre practitioners of, the art of pedagogy. The result is a general level of mediocrity of university teaching, which future teachers share with other undergraduates. "That muffled snarl you hear is the sound of unhappy college students enrolling ... for the Spring semester," wrote editor John Fischer of Harper's.

This is not to deny that there are many excellent university teachers, who make education both effective and enjoyable for their students. But they are in a minority, and there are two important points to be made about them. First, their excellence depends either on their outstanding command of their subject, or on their natural endowment as teachers, or (usually) some combination of the two. Second, they are not good models for improvement of teaching—at university, secondary, or elementary levels—if, as is argued below, the principal route to be taken to improve
education is to improve the teacher's ability to arrange fruitful learning situations. The reason why outstanding university professors should not be taken as models is that their virtuosity, which rests upon outstanding natural talents, is inimitable. The efforts of young college professors and of secondary teachers to follow the teaching model established by their outstanding professors dooms most of them to failure with respect to this model and diverts their efforts from other, more feasible, models.

**NDEA Institutes**

It has been argued above that academicians are for the most part unconcerned with, and uninvolved in, problems of teacher education. A notable exception to this generalization is the participation of academicians in the hundreds of NDEA institutes that have been held on college and university campuses during the last decade.

Typically, NDEA institutes have lasted for periods of four to eight weeks during the summer and have been conducted by educators or academicians or both. Academicians have played the more prominent role, as faculty members and often as directors. The institutes have had important positive results. Hundreds of academicians have become acquainted with the problems and needs of secondary and (to a lesser extent) elementary teachers, and have turned their attention for the first time to meeting those needs. Academicians and educators have been brought together in a joint endeavor to improve education. Tens of thousands of teachers have had the opportunity of improving their mastery of subject matter in history, geography, mathematics, English, civics, and other areas.

The positive contributions of NDEA institutes should not be minimized. However, for the sake of improving such efforts in the future and, more importantly, in order to achieve greater insight into the total needs of teacher
education, it is useful to look at the shortcomings of the institutes as a part of the total system for educating teachers.

For the most part, the institutes have been remedial, in the sense of making up for shortcomings in the original preparation of the participants. The spectre of a permanent remedial system for a permanently deficient system for educating teachers is unpleasant. If a remedial system for teachers, why not also a remedial system for students -- summer institutes for children who were inadequately taught during the winter?

Summer institutes, short in duration and affecting only a small fraction of teachers, can have only a limited effect on the total problem. Said one report on civics institutes: "There is no reason to delude teachers into thinking that their teaching will be more than marginally improved by pouring a little information, gathered at a single institute session, on top of insufficient curriculum approaches and patterns of the past."\(^6\)

The most serious problem of the institutes is the same basic problem that exists in the education of teachers in the universities: Assuming that the teacher acquires knowledge of a subject, how does he teach it? The long-standing assumption in the education of teachers is that they will learn subject matter from the academicians and "methods" from the educators; and that they, the teachers, will then combine these two bodies of knowledge into effective methods of classroom teaching. This untenable assumption leaves the most difficult part of the process -- the heart of the matter -- to the individual teacher. In a series of understatements, one

\(^6\)Longaker and Cleary, op. cit., p. 5.
sympathetic report on institutes said that "It is evident that the problem of translation of material into the classroom is notably complex and difficult....Not surprisingly, the problem of transfer and translation was imperfectly approached in every case....There was a real sense of pendency or incompleteness apparent in each of the institutes....They (the teachers) were...asking the question, 'What happens to us now?'"

The remedies suggested for the "notably complex and difficult" task of "translation" are not very assuring. One is to follow the old approach in teacher education, letting the teachers do it: "We are convinced that the imaginative teacher will build his own system, given the opportunity to learn the subject matter, to exchange ideas with his fellow teachers, and to be exposed to individualized advice from education specialists and political science experts alike." Equally unpromising is the suggestion that academicians and educators, who had not previously solved this problem during the academic year, might have greater skill and insight in the summer: "Staff economists and educators might demonstrate, for example, how they could teach a concept or process --such as specialization of labor and increased productivity-- in a third grade classroom; or teach the basic rationale of compensatory fiscal policy to high school juniors. Such demonstrations would not only help increase the economic competence of the participants, but also would increase their confidence." Some more hopeful --and necessarily more drastic-- solutions to the problem of "translation" are suggested later in this chapter.

7 Ibid., pp. 2, 3, 4. 8 Ibid., pp.4-5.

The NDEA institutes are part of a trend of the last decade or two toward the introduction of more academic content, and more sophisticated academic content, into the education of teachers and the school curriculum. Many schools of education have increased the subject matter requirements for degrees, at the expense of education courses. The federal government has supported other educational programs for teachers, in addition to NDEA institutes, which have emphasized subject matter rather than educational methods. The federal government, along with private foundations, has also supported many projects for the production of curriculum materials with the major emphasis on academic content; financial support for supplementary programs of teacher education and for the production of curriculum materials has never been so abundant. Furthermore, the conviction that more academic content and more sophisticated academic content can and should be incorporated into the elementary and secondary curriculum has been strengthened by the participation of a limited number of highly respectable academicians in the creation of new curriculum materials—men such as Jerome Bruner, David Page, Lawrence Senesh, Ronald Lippitt, and Robert Karplus.

The major curriculum materials projects, particularly those of long standing in mathematics and natural sciences, have had a noticeable impact on content and teaching methods in elementary and secondary schools. Similar hopeful effects may be expected from social studies curriculum projects. These undertakings combine some of the necessary ingredients for successful change in educational methods: substantial academic content and close cooperation between academicians and educators in constructing, testing, and implementing curriculum materials; and, to a lesser extent, the use of available knowledge about learning theories and cooperation in the education of teachers.
Despite these hopeful trends, there has been little satisfaction with the overall results. Future teachers take more of the courses with which they were dissatisfied in the first place; there has been little or no change in the approach of academicians to undergraduate education of future teachers or of others. Masters programs, whether for teachers or others, receive less and less thoughtful attention from the graduate faculties of the academic departments --with the notable exception of some Experienced Teacher Fellowship Programs. NDEA institutes continue without notable changes in the behavior of their faculties.

**Current Status of the Universities vis-a-vis Changes in Education**

The trends of the last ten or fifteen years toward greater engagement between teacher education and the public schools on the one hand, and the academic community on the other, have had a significant impact on a few aspects of the total problem. An extension of these efforts will yield additional significant results only by moving closer to the heart of the problem, which is the engagement --or lack of engagement-- of the universities with the theory and practice of education at all levels.

In the course of the last ten years, efforts to improve education have consisted largely of thrusts and parries in various directions. Various "target" groups have been identified and have received special attention for a time. The shock of Sputnik propelled our attention to the education of the gifted. The shock of urban riots thrust the problems of disadvantaged youth and the inner city school to the forefront. The demands of an increasingly automated economy, together with chronic unemployment among youth, have given vocational education a new lease on life.
Various methodological devices have also attained popularity. Programmed instruction, team teaching, modular scheduling, simulation, inquiry, computer-assisted instruction, and other methods have come to the fore and in some cases receded from public view.

While each of the newly-identified target groups represents a problem deserving our most serious concern, and each of the new methodological devices offers promise of more effective learning situations, there have been faddish aspects in each of these thrusts. There has been waxing and waning of funds, professionals climbing on and off bandwagons, and flowing and ebbing of articles in popular and professional publications. The faddish nature of these efforts to improve education might be interpreted in part as an avoidance of the big problem of improving education across the board.

We have an opportunity unprecedented in history. This is the opportunity of providing a good education for everyone in our society, consonant with the intellectual and vocational needs and capacities of each individual and drawing on a storehouse of knowledge that dwarfs the learning of all previous eras.

While a strong and steady thrust that takes advantage of this new opportunity in the next few decades is by no means assured, there are many present circumstances that favor such a happy course of events. The new interests in education described above, despite their faddish nature, offer a promising array of new directions to be explored. General dissatisfaction on the part of many participants in the educational enterprise opens up opportunities for change. Substantial recent improvements in our legal and verbal support for equality of opportunity for all Americans set the stage for realization of equality in the crucial area of education. The
now-general acceptance of the principle of federal funding to support innovations and to bolster weak areas in education offers opportunities for improvement that might not be supportable through state or local funding in the present century. Funds for capitalizing on these opportunities may be forthcoming in unprecedented amounts when the war in Vietnam is terminated.

The faddish nature of some recent educational changes has had some positive effects in attracting university participation. Psychologists, sociologists, and computer specialists, in particular, have found opportunities and funds for research projects in the schools that fit into their academic pursuits. Federal funds have also brought academicians into a closer relationship with the problems of elementary and secondary education by supplying funds for faculty appointments, graduate students, and other perquisites. Grants can remove at least part of the stigma acquired by academicians who show a concern for the education of teachers.

Participation in efforts to improve education on the part of academicians varies substantially among disciplines and institutions. The efforts in science and mathematics, supported largely by the National Science Foundation, are perhaps best known among the "new" curriculum efforts; the participation of prominent scientists and mathematicians in educational change is probably proportionately larger than in other disciplines. The NSF-sponsored college commissions on physics, chemistry, and other natural sciences have given strong support to such participation. Participation in educational change by academicians in the arts and social sciences has been much less than that by mathematicians and natural scientists, with modern languages and English probably situated somewhere between. Similarly, some major universities have been much more involved than others in educational change, as it relates to elementary and secondary education.
and the training of teachers. But these differences among disciplines and institutions are notable only on a relative basis. Overall, participation by the universities has been peripheral. Most of the major institutions are not centrally involved with teacher education or with the nation's schools, and there is no indication that they are about to become involved. Furthermore, many of the state colleges that have been primarily concerned with the education of teachers are attempting to emulate the major universities in academic accomplishments and to bury their image as educators of teachers.

It is almost but not quite inconceivable that the great revitalization in American education that may be in the offing would or could take place without the full working partnership of our universities. A growing number of school systems, finding the contributions of both educators and academicians at the universities inadequate for their needs, are developing their own expertise, personnel, and inservice educational programs. By and large they continue to develop their own curriculum materials with little
help from academicians. State departments of education are strengthening their staffs and increasing their teacher-education activities. Some critics of traditional teacher-education programs are calling for a movement of teacher-education activities to the schools and neighborhood centers of the inner cities, out to "where the action is"—and away from the universities. Some small private colleges (notable examples are Antioch and Webster) are experimenting with such programs and a major thrust of the Office of Education's new "Triple-T" program for "Training the Teachers of Teachers" is in this direction.

The fact that the help of the universities is badly needed in the accomplishment of one of the most urgent and exciting tasks of the twentieth century does not quite assure the universities or society that they will share in the toil, trouble, joys, and funding of that task.

Centers of Power in the Universities

There are three powerful centers of interest within a university—the faculty itself, with strong convictions about autonomy and academic freedom; the professional societies to which the faculty members belong, which have a strong influence on their value systems and status; and the administration, which holds the purse-strings, subject to the desires and the governing board, actions of the legislature, the public, and, to an increasing extent, the federal government. None of these centers of power has urged the universities toward a central commitment to meeting the needs of elementary and secondary education, although threads of interest and commitment can be found in each.

Within academic faculties of universities, interest and commitment to education is minimal and peripheral, as described in the preceding pages.
Academicians participate reluctantly in special courses for teachers, when they exist, and are equally reluctant to serve on masters and doctoral committees for education candidates. Discussion of pedagogy in faculty meetings, lounges, or elsewhere is considered to be inappropriate and uninteresting. Academicians who become closely involved in educational matters are suspect to their colleagues.

A number of professional associations of academicians have officially recognized an obligation to education. The American Economics Association has a standing committee on economic education, composed of able and esteemed economists, which cooperates closely in the nationwide, privately-funded activities of the Joint Council on Economic Education and also carries on some activities of its own. The latter have included surveys of educational needs at the college and secondary levels, recommendations for the content of economics courses in secondary schools, and sponsorship of section meetings at national and regional meetings of the Association. The American Historical Association has a long history of concern for problems of teacher education and the public schools. Among its activities directed to this concern is the maintenance of a Service Center for Teachers which supplies to elementary and secondary teachers information on new trends and materials in the teaching of history. The American Association of Geographers sponsors the National Science Foundation-funded High School Geography Project; the American Sociological Association sponsors the NSF-funded Sociological Resources for Secondary Schools; and other professional societies have shown similar concern for the education of teachers, the production of curriculum materials, and the state of elementary and secondary education. Altogether, these efforts make a significant contribution. They do not, however, have much effect or influence on the
vast majority of the association members, a fact that is well attested by the absence of articles related to education in the most prestigious professional journals as well as in the journals aspiring to be prestigious. University administrations cannot avoid some involvement in the problems of teacher education. They must provide funds, recruit faculty, and maintain the approval of the National Council for Accreditation of Teacher Education. They have facilitated arrangements for cooperation among academicians and educators, such as the establishment of university-wide councils on education, but they have not gone very far in trying to persuade or induce their academicians to take on a concern for education.

An optimum strategy for changing the orientation of universities to the problems of education would probably concentrate on the university administrations. Frontal attacks on academic faculties will probably be to no avail, although / continue to be subverted by grants on the fringes. The good efforts of professional associations should be encouraged and perhaps funded more directly and generously. But the greatest hope for change in the coming decade probably lies in the university administrations. They are in a position to see the overall needs of the university and of the states that support them. They are sensitive to the desires of the legislators, and of their constituents, who are close to the problems of elementary and secondary education and many of whom participate directly in it. They are at least as vulnerable to the lure of federal funds as are the professors who write the grant applications.

Whether and how the enlightenment that might inspire them to educational leadership will come to university administrators is a difficult question. All of the positive forces that have been described in the preceding pages have had some impact on university administrations, and this
The universities have been willing recipients of federal funds for educational purposes. To a large extent the quality of federally-funded programs depends upon the wisdom of guidelines written in Washington and the wisdom used in allocating the funds; to a lesser extent it depends on supervision by the granting agencies. More federal funds, designed to increase the commitment of universities to solving the broad problems of education and strategically publicized and allocated to influence university administrations, could be quite effective.

It is also conceivable that forces within the states may have a salutary influence on the actions of universities. If the nascent trend toward inservice teacher education outside the university grows and is supplemented by the now-infinitesimal tendency toward preservice education outside the university, the universities may become concerned for the institutional survival of their teacher-education programs. The discontent of teachers with their preservice and inservice education in the universities, the doubts of school administrators about the ability of universities to meet their needs, and the criticisms of parents may somehow become focused effectively on a major reason for their common concern -- the failure of the universities to assume the burden of improving public education.

It is also possible that state legislators may become the focal point for these expressions of discontent and may discover from these sources how meager are the efforts of the universities to improve the education of undergraduates in general and future teachers in particular. Thomas Jefferson said that education is "the most certain and the most legitimate engine of government" for the accomplishment of its goals. This was some years after Adam Smith had suggested that academic indolence and inertia
be cured by depriving universities of their endowments and basing the professors' incomes on student fees. "All states have the power to intervene in the affairs of universities," Robert Hutchins said recently. "The question is when and how it shall be exercised."\(^{10}\)

It would be regrettable if this urgent change of direction on the part of the universities were brought about by legislative mandate or withholding of funds. Legislatures are not noted for their complete understanding of the importance of academic freedom nor for their ability to legislate wisely the details of administrative operations. The preferred course of action is, of course, enlightened leadership on the part of the universities.

**Directions of Change**

Some of the suggested prescriptions for improving teacher education call for more years of training. The advantages of more education are clear. Despite the critical comments of the preceding pages, we have no intention of denying that formal education is useful. The 16 or 17 years of education which most teachers receive today is a vast improvement over the 8 to 10 years that typified the turn of the century. Extending the typical preparation period of teachers to 17 or 18 years may be very desirable, but our concern in this paper is more with the kind than the quantity of the education received by each teacher.

Perhaps the most common suggestion for improving the education of teachers is that more credit hours in certain subject matter courses be required -- particularly in the academic discipline in which the critic group has an interest. The director of the Center for Economic Education at New York University found that in New York City, where

\(^{10}\)Op. cit., p. 10.
economics is required of all high school seniors, teachers can obtain a social studies license without having any courses in economics. A nationwide survey conducted by Dr. Dawson indicated that only one-half of the nation's 60,000 social studies teachers have any formal training in the subject and that, generally, only about 10% of teacher-trainees ever take economics at the undergraduate level. Referring to the Bach-Saunders criterion of 15 credits in economics as a minimum for acquiring a lasting understanding of the subject, Dr. Dawson pleads for a requirement of at least six credit hours in economics for teachers of social studies.11

A survey made by the National Council of Teachers of English suggests that between "forty and sixty percent of the English in our public junior and senior high schools is being taught by teachers who lack even the minimal training required for a major in English." The Council's report makes clear their position that the number of hours of course work in English required of a teacher-trainee is insufficient. Particularly poor is the linguistic preparation of prospective English teachers, which the Council describes as "greviously deficient."13

It is likely that important improvements in the capability of teachers could be made through a better selection of courses, particularly if teachers moved still further toward specialization by subject matter and the future assignments of teachers could be made more predictable. But our major concern here is with changes in the education

11 Ibid., p. 9.
13 Ibid., p. 74.
of teachers that are more fundamental than a revamping of course selections among the existing offerings.

We are concerned here with a more basic change: a drastically altered relationship between the universities on the one hand and teacher education and the elementary and secondary schools on the other. The alteration requires changes in subject organization, institutional arrangements in the universities, attitudes, and teaching methods. The major requirements are:

1) The departmentalization of knowledge that exists in the university for purposes of administration, research, and professional reinforcement must not dominate the subject-matter education of future teachers as it now does. The educational experience of future teachers must include insight into the relationship of the various disciplines and into the nature of all human knowledge. Making the necessary arrangements to give such insight does not mean the abolition of divisions between the disciplines. On the contrary, successful accomplishment of this goal, for the sake of future teachers, might have a salutary effect on the academicians by improving their perspective on their place in society. It would also have a beneficial effect on the education they give to students other than future teachers.

2) Institutional changes are required. University administrations must facilitate arrangements for cooperation between educators and academicians. They must do their share, or more than their share, in establishing a system of rewards and status that encourages the participation of academicians in educational endeavors.
(3) The interests and attitudes of the faculty as a whole must be turned toward support for university participation in solving the problems of teacher education and of elementary and secondary education.

(4) New concepts, methods, and arrangements for teaching subject matter to teachers in both preservice and inservice programs are required. The methods by which teachers are taught do not necessarily have to resemble the methods by which they should teach; on the other hand, it is regrettable that the procedures that now dominate university teaching are so narrow and unimaginative. A thorough exploration of the many innovations which characterize recent curriculum innovations in elementary and secondary education might suggest some very useful parallels for the undergraduate education of teachers. These innovations include simulation and games, a variety of approaches to individualization of learning, programmed instruction, computer-assisted instruction, a variety of methods of pupil deployment in the classroom, inquiry methods, consideration of learning experiences in the light of taxonomies of cognitive and affective objectives, behavioral objectives, applications of specific theories of learning and teaching, and the use of a variety of instructional media.

In addition to broadening their repertoire of classroom procedures, academicians who teach future teachers should consider arranging experiences that put the knowledge of their students to work. Project assignments can be useful, and realistic applications of academic knowledge are not impossible to conceive and arrange. There must be academic analogues for the practice teaching that most student teachers find so useful.

If university teachers of future elementary and secondary teachers are to broaden their repertoire of instructional methods in the ways...
suggested in the preceding paragraphs, they cannot do it on the
individualistic basis that now exists. Teaching that is substantially
more complex in its concept and execution than delivering lectures,
receiving
asking questions, and 
answers may require a more complex
method of preparation. In short, the use of well-structured curriculum
materials may be as promising for the instruction of future teachers
as they are for the instruction of elementary and secondary students.

Examples

New methods for the instruction of future teachers in academic
subjects can be found by encouraging their invention and by searching
out promising innovations already in practice in one or a few places.
Both types of searches should be pushed.

Presented below are descriptions of three innovative plans for
educating teachers. They are not presented as ideal models, but as
examples which depart substantially from present practices and which
incorporate many of the suggestions of the preceding section. One
is a plan for preservice education, the second for inservice education,
and the third, an accelerated program to educate young veterans from
disadvantaged groups to be teachers.

Professor Lawrence Senesh of Purdue University has devised a
program for preservice education of elementary teachers in social
science. The plan has not been tried but is under consideration at
Purdue, the University of Colorado, and Southwest Minnesota State College.

Senesh's plan is a one-year bloc program for a group of future
teachers in their junior year. It calls for team work by an educational
methods teacher, a historian, a geographer, and 4 or more academicians
from other social science disciplines. In each of 4 or more cycles
PROPOSED PROGRAM FOR CONTENT-METHOD PROGRAM FOR FUTURE ELEMENTARY TEACHERS

This is a one-year program, which would occupy most of the students’ time during the year. It might be most feasible in the junior year.

A. Economics bloc

Staff: an economist, geographer, historian, and methods teacher.

1. 3 weeks: The fundamentals and structure of economics.

2. 5 weeks: Laboratory exercises, using the structure of economics, drawing on resource files of current problems, emphasizing the following aspects:

   a. Social reality
   b. Analytical tools
   c. Problem-solving
   d. Show increasing depth of a-c in grades K-6.
   e. Lay groundwork for multi-disciplinary approach, on which program will build as other social sciences are studied.
   f. Historical orientation
   g. Geographical orientation
   h. Use professional articles on frontier ideas in economics; what is the future of economics and of its contributions to society?

B. Political science bloc

Staff: a political scientist, geographer, historian, and methods teacher.

1. 3 weeks: The fundamentals and structure of political science.

2. 5 weeks: Laboratory exercises, using the structure of political science.

   a-h. Laboratory exercises parallel to those under economics.

C. Sociology bloc

Staff: A sociologist, geographer, historian, and methods teacher.

1. 3 weeks: The fundamentals and structure of sociology.

2. 5 weeks: Laboratory exercises, parallel to those under A and B above.

D. Anthropology bloc

Staff: An anthropologist, geographer, historian, and methods teacher.

1. 3 weeks: The fundamentals and structure of anthropology.

2. 4 weeks: Laboratory exercises, parallel to A, B, and C above.

E. Curriculum conference

1. 1 week: An open conference for presentation of student work and papers.
during the academic year there is an intensive presentation of one social science (excluding history and geography), followed by applications of the knowledge of the social science to social problems and synthesis of this knowledge with geography and history. As a new social science is presented in each cycle, the interrelations of the social sciences and their joint application to solving problems are studied. Throughout the year there is emphasis on the basic structures of the social sciences, the relationships among the social sciences conceptually and in the solving of problems, and the frontiers of knowledge in the social sciences. An outline of Senesh's program is given on the preceding page.

The second example to be described is the Experienced Teacher Fellowship Program in Economic Education at the University of Colorado, a one-year program that began on July 1, 1968. The program includes 25 elementary and secondary social studies teachers; 4 are from the Boulder schools, to facilitate cooperation with the local schools; the rest are from all over the Nation.

The Colorado program combines the study of social sciences -- primarily but not exclusively economics -- with the study of new curriculum methods and materials and with concurrent classroom teaching of the new methods and materials. The teachers are certified by the State of Colorado and under contract (without pay) to the Boulder schools.

They teach one class each day throughout the year, in teams of 3, and each team has full responsibility for its class.

The materials taught by the teachers are those produced by major curriculum projects; they emphasize the substantive content of social science and a variety of new teaching methods. Each team teaches
a set of economics curriculum materials and a set related to another social science during the course of the year. These are curriculum materials they have examined during the preceding summer months with the aid of a comprehensive instrument that calls for analysis and evaluation of the substantive content, cognitive and affective objectives, learning theory, teaching strategies, and other characteristics of the materials.

The classroom practicum counts for one-third of the teachers' credits during the academic year. Concurrent courses and seminars in economics, one other social science (corresponding to the second set of curriculum materials that is taught), and social studies methods are taken by all the teachers; the intention is that the content of these courses is tested and integrated in the practicum. Each team is responsible for planning and executing its own practicum experience, and for analyzing and documenting its experience with the aid of video tapes and of advisors on the staff of the Experienced Teacher Program.

The third example of innovative teacher education is the Veterans Accelerated Urban Learning for Teaching (VAULT) program recently begun by Webster College in St. Louis. The purpose of the program is twofold: to provide teachers qualified to teach in ghetto schools and to provide professional teaching opportunities for economically and culturally deprived persons who could receive the necessary education only through a program specially designed for them.

The group to be educated as future teachers consists entirely of male veterans about to be discharged or recently discharged. They have
high school diplomas but no college education. The majority are Negroes. The program is designed to capture and keep the interest of participants by offering rapid and visible progress in the acquisition of skills and knowledge and by offering attractive and early monetary rewards.

The program offers subject matter of immediate relevance to the students. Early in the program there are seminars on conflict analysis, Black-White relationships, and remedial reading and writing. Later courses move the students through the necessary subject matter of mathematics, science, and humanities, and on to educational theory and practice.

New and varied instructional methods are used. In the classroom there are role-playing and role-analysis, interdisciplinary approaches, video-taping, film-making, and programmed materials. "Action learning" carries the student into the disadvantaged communities of St. Louis to learn through supervised work in tutoring, community organization, and city service agencies.

The examples just cited give an indication of the radical nature of the changes that are required. Bloc programming is a prominent feature of the three examples just given, but is a rarity on most university campuses. Intimate collaboration among university educators and academicians, which is present in all three programs and particularly in the Senesh program, is only a hope in most universities. Relations with schools going well beyond the usual student-teaching relations are prominent in the Colorado and Webster plans. Direct engagement with urgent problems of our social system is an outstanding feature of the Webster plan.
Conclusion

The education of both future and experienced teachers is, for the most part, unexciting and ineffective. While many groups—school administrators, teachers, legislators, state and federal officials, the general public, and others—can and should work for radical improvement in this situation, the present chapter has concentrated on the role of academicians—particularly but not exclusively those in large universities.

The chapter has pointed out some of the causes for the low state of teacher education. It has emphasized the failure of academicians to become engaged with the problems of elementary and secondary schools and the education of teachers, commenting also on the roles of the universities that nurture the academicians and the professional societies that are nurtured by the academicians.

The chapter has also indicated some promising directions that might be taken by academicians, university administrators, and educators who wish to make positive and imaginative efforts to solve these critical problems. Most of the indicated solutions are rather radical, against the background of a teacher-education system that has seen but little change during the last four or five decades. They include multidisciplinary efforts among academicians, close collaboration between academicians and educators, a restructuring of reward systems on the part of university administrators and professional societies, substantial changes in the methods by which future teachers are taught, and much closer working relationships with the elementary and secondary school and with the community.

While the costs of these radical changes—particularly the subjective costs of altering deep-rooted attitudes and institutional
arrangements—may be high, the potential payoff is tremendous. Academi-
cians hold the key to a storehouse of knowledge such as the world has
never seen. Their concern for sharing these treasures with their children
should be at least as great as their concern for accumulating still
greater treasures.