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ABSTRACT

Southern states are introducing one or more of a combination of five approaches to teacher education and certification, all of which are aimed at improving the quality of new teachers. These include: (1) adding test requirements at or near the end of the bachelor's degree teacher education program; (2) lengthening the probationary period for new teachers before state certification is granted; (3) raising admission standards of teacher education programs and/or testing the basic skills of prospective teacher education students; (4) strengthening student teaching experiences; and (5) combining inservice programs with probationary or evaluation periods to assist prospective teachers in correcting deficiencies. New emphasis is being placed on research and development efforts to help design the improvement programs, create competency tests, and inform state leaders if the new approaches are helping to improve the quality of teaching. Increased communication and cooperation between state higher education agencies and boards of education is urged. (Author/JD)

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Emerging Patterns of Teacher Education and Certification in the South

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Highlights

- Southern states are introducing one or more of a combination of five approaches to teacher education and certification—all of them aimed at improving the quality of new teachers. These include:
 - adding test requirements at or near the end of the bachelor's degree teacher education program;
 - lengthening the probationary period for new teachers before state certification is granted;
 - raising admission standards to teacher education programs and/or testing the basic skills of prospective teacher education students;
 - strengthening student teaching experiences;
 - combining in-service programs with probationary or evaluation periods to assist prospective teachers in correcting deficiencies.

- Few states have mounted research and development efforts to help design the quality improvement programs, create competency tests, or inform state leaders if the new approaches are helping meet the goal of quality.

- Increased communication and cooperation between state higher education agencies and state boards of education will be required if quality improvement is to be achieved.

- The implications for higher education of these quality improvement efforts must be anticipated and assessed. Enrollment declines are likely in both general education and teacher education programs, and ways to cushion these shortfalls temporarily need to be devised to prevent financial crunches and stopgap relaxing of standards.

- Time, and money, can be saved if states share information about their many efforts to improve teacher education and certification.

Emerging Patterns for Teacher Education and Certification in the South

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Southern Regional Education Board

Foreword

The opportunity to improve teaching and learning in our schools may be greater than it has been for some time simply because of a growing commitment by those individuals and groups who can make this improvement a reality. Strikingly similar goals are being voiced today by educators, by state legislators and governors, and by lay boards which govern schools and colleges.

Translating this broad consensus into action will not be easy or automatic. Despite a widespread desire for similar results, nagging problems contribute to confidence gaps between groups whose cooperation is essential. For example, reported skill deficiencies of graduating high school students—and of some teachers—shake the public's confidence. In turn, teachers' faith in the public is uneasy because of a perception that the public not only expects more than teachers can reasonably deliver but is unwilling to reward teachers adequately for their services. Likewise, misunderstandings persist between legislatures, governors, state education agencies, and institutions, because of inadequate communication and past differences of opinion.

To help build on the present climate for improvement, SREB is providing a range of information about state actions and alternatives aimed at improving education. This paper by Robert E. Stoltz, vice-chancellor for academic affairs of Western Carolina University, is the latest in a series of SREB reports on educating and certifying teachers and the responsibilities of higher education in this process. As can be expected, developments vary widely among states, but there are also similarities. In describing these, Dr. Stoltz notes strengths and weaknesses in current programs, and offers suggestions for future efforts.

Closer collaboration between higher education and the schools can result in substantial benefits to both. Recently, SREB has established a Task Force on Higher Education and the Schools to help forge that partnership and to develop a statement of priorities for future action by states and SREB. It is hoped that the Task Force will help clarify responsibilities of all sectors of education and lead to constructive actions to improve the quality of education at all levels.

Winfred L. Godwin
President

January 1981

The Search for Quality Standards for Teachers

Suppose you were a state legislator and had become downright tired of always seeing your state at the bottom of the national heap when rankings of student achievement—ranging from SAT scores to tests for draftees—were compiled. Plus you were getting more letters from outraged parents and employers citing close-to-home examples of poor student performance. On top of this, your conversations with constituents always seemed to include accusations about the weaknesses of teachers. What would you do?

You might consider doing a lot, particularly if you felt that over the years, in the name of quality, quite a bit of state and local money had been invested in the schools and the teacher training enterprise. Your first thought might be to require competency tests of high school graduates before granting them a degree, but then you remember you did that last year. Or you talked about it in your state, but put it on a shelf after a colleague pointed out several difficulties with attacking the problem only at the very end of the public school years.

The trail to a solution might lead you then to consider what many other Southern states are doing, namely, making attempts to get a firmer handle on the process by which teachers are educated and certified. Not a bad idea, but not an easy one either. Many approaches are possible and legislatures and executive bodies in the several Southern states are going about it in different ways, though the common intent seems to be very much the same—to insure that teachers who are granted a license to teach are of at least a minimum quality. This report will describe in general terms the newer approaches most often appearing as improved ways to define, measure, and establish minimum quality standards for teachers, particularly new teachers.

A 1979 SREB report, *Teacher Education and Certification: State Actions in the South*, looked at new efforts in five states. An analysis of the general problem facing the states was presented, along with a description of the issues that seemed to be growing in importance.

Much has changed in a year. Some plans are now programs, some programs are producing enough data to warrant at least tentative speculation, and committee discussions have produced proposed statutes which will get a hearing this year. This report will outline what seem to be common elements in the emerging state plans and focus on those approaches which may be worth review in detail by states considering what additional steps they might take.

One caution should be noted. The situation in the Southern states is not static, nor is there one single pattern that can accurately portray the entire region. While all of the states comprising the Southern Regional Education Board's area of immediate concern have been considered, not all will necessarily be mentioned. The state of the art is very much in flux, and what is true for the moment may be out-of-date, revised, or replaced by the time the presses roll or the legislatures adjourn again.

Most Common Changes in the Teacher Certification Process

By the summer of 1980, five new approaches affecting teacher education and certification were relatively common in the SREB states. Beyond these five, many of the states have introduced a unique element or two, and relatively few states have programs with all of the five features appearing in some combination. But it is safe to say also that some states have made few if any changes to date, and none give any indication of being through with their changes. For those states just considering the issue, or for those who are continuing earlier efforts to develop a program to fit their circumstances, a thoughtful look at the five elements should be of value.

If one were looking for states that have done the most in terms of putting several of these five elements together in an orchestrated fashion, it would probably be most helpful to look at the developments in Georgia, South Carolina, and Florida. North Carolina is not quite so far along in planning, but has a very promising approach which is unique in that it involves a strongly cooperative effort by both the department of public instruction and the public university system.

1. Addition of Test Requirements at or near End of Bachelor's Degree Program

Most states have considered establishing an objective test requirement for all prospective teachers. Passing the test is required before the teacher can be certified. Where such tests already exist, the effort has been directed first toward raising the requirements on the test. There is no single objective test that is universally regarded as a well-established, empirically validated measure of "goodness" in a teacher. The lack of such a theoretically desirable measuring tool has led to two related but slightly different approaches.

In the first approach, a reasonably well-known and widely used instrument, the National Teacher Examinations (NTE), prepared by the Educational Testing Service, has been used. The test does not claim to show which teachers are good and which are poor, but its combination of scores is intended to measure things which are important for teachers to know. Some states, such as South Carolina and North Carolina, have been requiring the NTE for years. Most efforts have included studies of the validity of the NTE and have resulted in the establishment of new standards of performance to be expected of prospective teachers. To date, these validity studies have relied largely on the judgment of professionals in the field as to what scores prospective teachers should make on the different parts of the test. State validity studies were often required first to answer legal challenges as to the propriety of using the NTE as part of the certifying process. Results of these studies in Louisiana and North Carolina, for example, also supported efforts of those seeking to change test score standards.

Almost without exception, these new standards have been higher than the old ones. Some states which have not used the NTE as a requirement are considering doing so, while others are now requiring the tests but are not specifying minimum performance standards or cutoffs, although that seems the likely next step. States which have made as at least part of their approach to the quality improvement effort the requirement of the NTE or setting new higher levels of performance on the NTE include North Carolina, Virginia, Arkansas, South Carolina, Tennessee, Louisiana, and Mississippi.

A variation of this approach is the special development of tests that are supposed to reflect a state's individual notion of just what minimal competencies or skills are essential. Georgia represents a good example of this approach: the competency level is defined, in layman's terms, as the prospective teacher knowing or being able to do those things which are characteristic of the area in which the teacher is seeking certification. The Georgia program is rather well along. Some 21 different tests covering 90 percent of all the areas of certification are available. Each year, four versions of each test are produced. Last year, 5,000 applicants for certification took the examination with a passing rate of approximately 80 percent on the first attempt.

South Carolina's approach at first glance looks similar to Georgia's. The NTE tests are to be used, but where no appropriate examination exists, a special examination to meet the requirements of South Carolina's basic certification areas is planned. The South Carolina approach is a relatively young one, with the first examinations not due until July 1981, and there is the possibility that it may be later than this before the first tests are given. It remains to be seen how much the South Carolina examinations, as they emerge, will resemble the Georgia ones. The North Carolina plan also assumes locally developed tests, but no dropping of the NTE at this point. Florida has instituted a similar program, with its definition of minimum competency emphasizing mathematics, reading, and teaching skills. At this stage, only this common three-part examination is used, and tests specific to certification areas are not part of the package.

Whether states use the NTE with increased score levels or specially designed competency measures, all have encountered basically the same general situation—the numbers of prospective teachers who fail the examinations on the first attempt are not small and the failure rates for graduates of historically black colleges are much higher than for graduates of historically white institutions.

2. Lengthening the Probationary Period

Several states have lengthened the period during which a prospective teacher is in a probationary status prior to being awarded fully certified status. Georgia, South Carolina, Texas, and the basic plan being considered in North Carolina, illustrate this approach. The clear premise is that the longer one can observe a prospective teacher actually carrying out the day-to-day responsibilities of a teacher on the job, the greater the likelihood that weak or inadequate teachers can be weeded out. Experience with probationary periods tells us that the length of the period is important only if supervisors are systematically observing and evaluating the performance of the new hires and if there are procedures for taking action when weaknesses are apparent. Most of the state plans that call for lengthening probationary status seem to recognize these caveats, but some are less than clear on just how this evaluation during probation will be carried out. The Georgia approach, however, is relatively explicit and is now entering its first full operational period. In a short time, Georgia, and other interested states, can begin to see how it will operate in practice. The Georgia approach is sufficiently new that it is worth describing in more detail.

Georgia has established 17 regional assessment centers, fully staffed, which began operation in the fall of 1980. Using methods and instruments developed by the University of Georgia Teacher Assessment Project (TAP) over the last three years, teachers with temporary certificates will be observed in their classroom twice during the year, in the fall and spring.

Three observers will evaluate each teacher. Lesson plans, classroom procedures, and interpersonal skills will be rated. Altogether some 14 basic competencies will be evaluated on each occasion. Probationary teachers doing poorly on the ratings will have opportunities to work on weaknesses, and a teacher must receive satisfactory ratings on two successive evaluations before being recommended for a renewable certificate. The Georgia plan is probably the most sophisticated approach developed thus far to attempt field evaluation of a beginning teacher during a longer probationary period.

3. Tests of Basic Skills Required for Admission to Professional Sequence

The process by which a prospective teacher moves through the requirements of a college degree can be divided into two periods: a *pre-professional period* (roughly the first two years of college) during which the student completes the general education component of the degree (basic arts and sciences, mathematics and humanities courses); and the *professional sequence* (roughly the last two years) during which the student takes the majority of the professional education courses and the courses which cover the particular teaching specialty the student has chosen as a major.

Some of the weaknesses of new teachers are believed to be in the areas of fundamental skills, or general education. If this is correct, it follows that if the professional programs of education were more selective about whom they admitted, then the result would be students both stronger in general education and, presumably, capable of gaining more from their professional program. As a consequence, these more stringently selected students should be capable of performing better as teachers. Following this logic, several state plans include, or intend to include, tests of basic skills as requirements for admission to the professional education sequence. In most state plans, these tests would be given at or near the end of the sophomore year of college. States either incorporating or considering such an approach include Florida, Tennessee, South Carolina, Texas, and North Carolina.

Some have argued for requiring a higher grade point for admission to the professional sequence, say moving from a 2.0 to a 2.25 on a 4.0 scale. This can be deceptive in its effects. Grade inflation has already become a national problem. Faced with enrollment pressures in the colleges, it is almost too easy to see grades float up to meet new requirements, without achievement necessarily improving.

Again, the exact approach used to screen at the beginning of the pre-professional sequence differs from state to state. Florida has chosen to use score levels set on the nationally administered tests used for college admissions, either the Scholastic Aptitude Test (SAT) or the American College Test (ACT). Tennessee, on the other hand, has chosen to use one level of the California Achievement Test. In nearly all cases, however, the contrast and emphasis within the tests have been on the basic skill areas of reading, language, verbal comprehension and reasoning, and mathematics.

It is too early to tell what the effects of these new hurdles will be, but past experience in similar situations offers some reasonable speculations. The initial effect probably will be to further reduce enrollments in the professional education sequence unless the state test score cutoffs are set at near minimal levels. This would further reduce the supply of teachers, with at least a two-year lag between the time the test is initiated and the first wave of students passing the hurdle reaches the degree-granting stage. This loss could be offset slightly in the short term, and maybe in the long term, if the increased selectivity of education as a major and the

possibility of expanded job opportunities, due to a shrinking pool of eligible teachers, draws in more students. How much this particular scenario will be played out is hard to say. Some data suggests that in recent years, as the word of a teacher surplus spread and new career opportunities in more lucrative areas emerged, particularly for young women, the principal group of students lost from the pool of education majors were the more able students, not the weaker ones. Whether increased selectivity in the teaching fields will make education programs more academically challenging and attractive enough to offset this loss of the higher achievers, or draw them back into teaching, is not known at this time. Many are skeptical that it will and they will be watching such states as Tennessee and Florida to see just what does happen to the numbers.

Whether the number of education majors goes up or down, the objective of all this must be remembered—it is to improve quality. In order to get better quality, it may very well be necessary to reduce further the overall supply of new teachers for an unknown length of time.

4. Strengthening Student Teaching Experiences

One of the education components professional teacher educators most often cite as playing a critical role in the preparation of new teachers has been the student teaching experience. It is supposed to work this way. A teacher candidate, usually in the senior year of college, is sent out into a real school, in a real classroom, to work under the guidance and direction of a practicing teacher, theoretically one who is a good role model for the student. During this period of exposure to the realities of teaching, the candidate practices and refines his or her skills, is monitored and counseled by individuals from both the college and the school, told of strengths and weaknesses, and in the final analysis, judged on performance as a prospective teacher. In recent years, increasing attention has been given to critically evaluating this student teaching period and assessing whether in practice it is operating as it should according to the theory. What is emerging appears to be the increasingly widespread belief that much can be done to make the practice better fit the theory. Recurring problems include:

- Who from the college should supervise or monitor? What training should these supervisors have?
- Who are the best teachers to whom students can be assigned? What training does the teacher need to serve as a good supervising teacher?
- How best should the schools and the teachers be compensated?
- In the past, some student teaching sites were selected as much for political as pedagogical purposes. What are the best procedures for identifying and selecting sites?
- Are the students really being evaluated? What are the students told about their strengths and weaknesses? Does this lead to corrective action?

The South Carolina plan calls for methods and procedures to describe and evaluate performance during the student teacher placement. The plan under consideration in North Carolina also recognizes this issue and calls for more care in the selection of sites for student teaching assignments, and greater clarity in defining and shaping the roles and responsibilities for guidance and supervision of student teachers between the schools and colleges. The techniques and procedures developed in the Georgia teacher performance research should be applicable to student teaching. Given the emphasis placed on this part of the teacher education programs in all of the Southern states, what is remarkable is not so much that a few states are targeting effort on this component, but the relatively large number of states that seem to have paid little attention to it up to this point.

5. Coupling In-Service Programs with Probationary/Evaluation Periods

Often the probationary period (as well as the student teaching experience) is thought of as primarily a screening effort where weak teachers will be guided out of the field. This is, or ought to be, true. But it should also be recognized that this is a time when prospective teachers will attempt using their skills with more independence and when weaknesses, most not of the critical variety, can be most clearly identified. The probationary period then can be treated as an additional time for correcting shortcomings, not simply making in-or-out decisions.

If the intent of the system is to provide teachers of improved quality, then the new teacher must be told about these weaknesses and given a crack at correcting them. This makes good sense not only in terms of operating a humane system, but also having a system which makes economic sense. By the time a candidate enters the probationary period, both the student and the state have invested a great deal of time, dollars, and energy. This investment should not be thrown away if a skill weakness can be corrected. Of course, if it can't, then certificates should be denied.

Several states recognize this and provide for it directly in their plans. The operations of the Georgia approach, the plans in South Carolina, the preliminary planning work of North Carolina, and the activities emerging in Florida seem designed to address this situation. Other states appear aware of the need and the benefits of coupling in-service corrective education efforts with the evaluations of individuals going through the probationary/evaluation periods, but their published plans or current operational schemes do not seem to have singled out this aspect for clear and direct attack.

If the extended probationary period is to work, the state needs to recognize two basic features. The first is that an analysis of prospective teacher strengths and weaknesses which can be understood and readily interpreted by both the student and those charged with providing corrective education must be provided. The second is that the probationary system, particularly at the local level, must have the capability of generating the specific education needed to remedy correctable deficiencies. This means much more than just assigning the young teacher to another conventional class or two offered by the teacher training institution or a mass workshop provided for all teachers. To be effective, in many cases the corrective program will need to be individually designed with close monitoring. In the past, this linking of evaluation with effective in-service courses has often been neglected.

6. The R&D Effort—Not a Common Piece

An element which perhaps should be more common in state plans, but does not appear to be, is a supportive research and development effort. This could assist the state in designing its approach, creating and field-testing instruments and procedures, conducting the essential research necessary to validate and monitor state efforts, and advising the state on how well qualitative goals are being met. Georgia appears to be moving along in this area and Florida has set up some of the pieces of this type of system. Research and development activities on a much smaller scale are present in other states and not apparent in some others. It is probably not the best use of resources for a state to spend a considerable amount of money and effort to modify the present certification process and not have a research program capable of giving indications of whether the total process is having the anticipated effects.

Behind-the-Scenes Struggles

Outcomes of important behind-the-scenes struggles may be more significant than the mechanical changes that are made in the process of certification itself. In most cases, these struggles are rather covert, or at least gracefully masked, but they are nonetheless quite fundamental and far-reaching in terms of their implications.

Who Will Set the Standards?

Take, for example, the issue of just how certification standards will be set and who will set them. One could argue that in most states this issue is already resolved statutorily. Consequently, there should be no issue or question. However, the recent experiences in some states make clear that when the lid of the box is opened—whether changing test requirements or lengthening probationary periods—the question of “who has authority to do what” isn’t really settled and rapidly moves to the front.

On the surface, it would seem that the legislative body has the final authority in most states. But even when one says this, there is much still unsaid. Does or should that authority permit the legislature to select individual tests, specific test score cutoffs, or approve detailed competency lists? Should the role of the legislature be primarily one of setting basic policy and asking for and approving operational plans to be prepared by state agencies, or should the legislative or executive body be getting into the many details of creating a plan itself? Some state legislatures have wanted a role involving more of the details and have moved to take it. In other situations, it appears the legislature moved into the level of details reluctantly and then only when faced with what it perceived as lethargy or a failure by a state agency to understand legislative intent.

Given the several elements which must be fashioned into a sound and technically satisfactory system, it would seem, from reviewing the current scene, that it would be best if the legislative body dealt with major public policy issues, requested formal detailed planning, and reserved to itself the right to approve the final plan. A legislature might function best by assigning the responsibility for detailed plans and procedures development and operations to an agency or set of agencies. Essentially this has been the Georgia approach, and characterizes the North Carolina approach. The North Carolina model is all the more notable since it had its basic origins in a joint effort between the North Carolina Department of Public Instruction and the University of North Carolina system, without an initial legislative instruction to proceed. But relatively close communication with the lawmaking and executive branches has also been a part of the process.

Higher Education Agencies and Boards of Education—Are They Communicating?

In discussions with individuals who have played significant roles in designing their state’s recent approaches to certification, it is striking to hear the number of times reference is made to the inadequacy of current communications between the state systems of higher education and the state departments of education. Examples seem more numerous than one would like to believe possible. In one state, for instance, the state coordinating body for higher education became aware of teachers being certified in teaching fields it did not know existed on some of

the campuses. In another, the data systems were such that it was difficult, indeed almost impossible, to determine readily who had been certified from each of the teacher-producing institutions. In still another, it is not routine to involve the state higher education agency in the process by which the state department of education approves or accredits teacher certification programs. One cannot escape the conclusion that all of the work to develop exit tests, entry tests, or lengthen probationary periods might be lost if simultaneously these two pivotal state agencies do not talk more to each other about their common efforts to develop and utilize teachers of superior quality.

Virginia offers an example of efforts to improve the communication between these groups. In the formation of new guidelines for teacher certification, top administrators of the Council of Higher Education were on the State Department of Education committee that drafted the guidelines. Similarly, a joint effort of key officials of the State Department of Education and the Council has resulted in plans for a cooperative procedure in approving new teacher education programs and in periodically reviewing these programs. This cooperative approach has been jointly endorsed by the boards of the two agencies.

Certification Changes— Implications for Higher Education

Conversations with deans and heads of departments of education often indicate that, so far, they have not given much thought to the implications for their institutions in the changes being proposed for the teacher certification process. This is not too surprising in some respects. For example, in several instances those responsible for teacher training on the campuses had not been very much involved in the debate over certification changes, much less the decision making. But this absence of involvement does not alter the fact that the changes proposed or in place could have major effects on the institution.

General Education

Many of the testing requirement changes place a new weight and responsibility on the general education program offered by the college. There are sizable ripple effects from this for almost all campuses, particularly since the general education program is usually offered almost exclusively by the humanities, arts and sciences departments and not by the schools of education. Just what the effects of these tests will be will vary greatly from state to state, since there are marked differences in the general education definitions and examinations being proposed for entry screening into the professional education sequence. For instance, the Tennessee test is Form 19 of the California Achievement Test, which provides measures of mathematics, reading, and language. In North Carolina, it is proposed that a special test, the Pre-Teacher Education Examination, measuring English usage, literature, fine arts, math and science, and social studies, be developed for this particular purpose. Even at the surface level, differences in coverage between the Tennessee and North Carolina tests seem extremely pronounced.

In addition, the North Carolina model currently calls for a writing sample as part of the testing procedure. Similar basic procedures, but different test components, exist in Georgia, South Carolina, and Florida approaches. Some institutions may face little need to change their curriculum in order to produce students who can successfully pass these new requirements, but others will have to revise and strengthen their existing programs substantially.

The new requirements imposed by groups outside of the traditional education circles may tread on an important set of institutional prerogatives and will not be welcomed by all. Intra-institutional frictions are both possible and likely. If students admitted as education majors cannot be brought up to the levels required in the general education areas, it will be the arts and sciences departments that will be faulted for playing a role in further shrinking the enrollments in the schools and departments of education.

If the new standards are established at appreciably higher levels than the institution now has, not only will enrollment in education fall but, concurrently, total institutional enrollment could decline. Since full-time student enrollment presently is the driving force in the institutions' finances and staffing, some sizable adjustments in operations and faculty size could occur. This is not to say this is undesirable, or not a necessary and perfectly logical consequence of the need to improve teacher quality, but it does raise several questions:

- Will institutions which experience this possible enrollment decline be aided in adjusting to it? Will the state funding formula be adjusted to ease the impact?
- How will the cutting or screening scores be set? What relationship will there be between the setting of these cutoff scores and the need to meet teacher manpower demands?
- To some degree on all campuses, the screening tests will generate a need for improved remedial or developmental instruction. What will be provided in the way of resources and assistance to supply these services?
- What are the implications for the transfer problem? Could a senior institution use the new tests to screen transfer students from a two-year institution?

By no means does this list cover all the consequences of a new screening test for aspiring teacher education graduates. What it does suggest is that there are many implications to which colleges and state systems of higher education ought to attend. In some states, there is little lead time to do this homework.

Teaching Skills or Subject Competency?

The emphasis on demonstrating competency in the teaching area for which certification is sought through performance on objective instruments will probably add fuel to the long-standing arguments between faculty who are subject matter specialists and those who are professional teacher educators. Historically, in this debate the subject matter specialists have claimed that to be a good teacher requires more instruction in the discipline one is to teach, e.g., mathematics, rather than additional courses covering professional education issues and concerns. The professional teacher educators have agreed that subject matter skill is important, but have maintained that to be a good and proficient teacher requires more than subject matter skills, and the degree program should cover such topics as the history and philosophy of education and a study of the schools as a system.

Almost every college faculty member, and certainly all top academic administrators, are quite familiar with the debate. Most recently the question has shifted to who should teach the methods courses—a subject matter specialist or a professional educator. Similarly, there is no agreement over who should supervise the student teacher—the subject matter specialist or the

professional teacher educator, or both. And so the debate goes, with little hard data to support either side convincingly or exclusively. With greater weight on the subject matter tests, or on tests in combination with evaluation in actual work situations, the debate may grow with more heat and not necessarily more light. This possibility for argument should not deter changes, but it is important to realize there will be disputes which will take on new dimensions, and administrators at the colleges and universities should be gearing up for them.

States and Campuses Should Anticipate Consequences

Individual colleges and universities and system governing and coordinating boards will find it profitable to engage in careful planning—addressing some tough “what if” questions. We already know that, in general, the sizes of high school graduating classes will drop and continue dropping well into the 1980s. Some states and some localities within states might escape this trend, but for most it will be a decade of stable or declining enrollments.

We need to begin estimating early, long before we know for sure, just what some of the probable impacts are of the changes we are considering.

- Will these additional enrollment declines, which some anticipate as a result of the higher qualitative standards, come?
- If so, when will they come and what institutions will be most affected?
- Which institutions might be affected first?
- Will the losses be sufficiently large in certain types of institutions to generate large surpluses of faculty?
- If so, will the faculty surpluses be restricted to the schools of education or will there be surpluses in other areas, such as arts and sciences?
- Do these changes represent short-term changes only, or will there be long-range changes of the same or of a different order?

While we cannot know the future, we must do our best to anticipate the most likely eventualities and try to insure that the teacher quality goal will not be lost as survival replaces growth as the new watchword.

Basic to this whole concern with anticipating the forces that will affect our institutions, in the short and long term, is the simple fact that almost all of these collegiate institutions are enrollment driven. Faced with dramatic shifts either in total enrollment or internal adjustments in program enrollments, institutions can wittingly, or by default, react in ways which are harmful to improving quality. Legislative and coordinating bodies must be prepared, in advance, to help them adjust in the most positive ways.

The Supply and Demand Picture

In *The Changing Labor Market for Teachers in the South*, SREB economist Eva C. Galambos described in detail the supply and demand situation in the teaching field. She also forecast what seems the most likely future situation based on her analysis of the factors which seem most influential in moving the figures up and down. Consequently, a full description of that issue will not be necessary here. However, there are some aspects of the new certification procedures which need to be kept in mind, since they could have fairly direct effects on the supply and demand situation.

Even though we have had a general surplus of teachers, we have continued to have shortages in specific teaching fields (mathematics, the sciences, and vocational/technical areas) and localities (rural and inner-city areas). While the total number of students in teacher education programs has declined in recent years, what should concern us greatly is that the more academically able prospective teachers may have been leaving the field in proportionally greater numbers. This is all the more a source of worry since programs in teacher education already had, with some few exceptions, tended over the years to enroll students whose formal academic credentials were less strong than those of students in most other college majors. So the problem during the 1970s is best understood as not only a loss in total numbers and specific fields, particularly mathematics, but a probable loss in overall academic quality as well.

As if this wasn't enough, another study by W. Timothy Weaver of Boston University indicates that mathematics is the academic achievement area in which prospective teachers show themselves least strong when compared to other college majors. As Galambos has pointed out, this "is an ill omen for improving the teaching of mathematics for the new generation." The basic message here is that while overall teacher supply still seems to exceed demand, there are some notable exceptions and these exceptions are in what may be very critical areas of need in our society.

The supply and demand situation within a state can shift quickly. Georgia provides a useful and informative illustration. In the summer of 1979, Georgia received much attention by reporting what appeared to be a serious teacher shortage, with 9,000 vacancies projected for the fall and less than 3,000 new teachers graduated that year. But by September of 1979, this vacancy total had dropped to less than 500. Why the sudden shifts? According to officials in Georgia, fewer teachers chose to leave the profession and many teachers from Alabama, North Carolina, California, and the Midwest sought and found jobs in Georgia. In spite of Georgia's generally lower beginning salaries, the lack of jobs in these other states, aided by an intensive recruiting effort by the state, helped create a sizable in-migration. And the anticipated teacher shortage was greatly reduced.

Typically, when projections of the supply and demand question have been attempted in the past, they have considered teacher turnover rates, estimated number of graduates with teaching degrees, numbers of majors enrolled, and vacancy rates. But the changes in the teacher certification process have thrown a set of new and relatively unknown ingredients into the pot. What they will create depends largely on what particular set of new elements in the certification process is established within a state and the selection ratios, singly and in combination, of each.

For example, if only an increase in required score levels on the NTE common examination is being considered, then one can estimate relatively well for a single year the number of teachers likely to be rejected under the new requirements. Even here, though, one must distinguish between the number of prospective teachers passing on the first attempt at the NTE and those passing after repeated attempts over a period of several years. Clearly, the higher the new cutoff scores are set, the more the immediate supply of new teachers will be reduced. Some authorities are quick to point out that the long-term effect could be an even greater drop in supply if the new test requirements are perceived as difficult to achieve and, in terms of later rewards on the job, are seen by students as not worth the effort.

On the other hand, some believe that setting higher score standards may cause an initial drop in the numbers of certifiable teachers but will be overcome quickly by more students seeking out and enrolling in the higher quality programs. Many college administrators view this notion with skepticism. While students tend to seek out fields that are challenging, personally fulfilling as careers, and offering attractive rewards in both financial and personal terms, raising examination standards does not necessarily convey these features to students.

Change the Job of Teachers to Attract the Best and Brightest

No one doubts that the teacher preparation programs could be made more intellectually and personally challenging or that the career field of teaching could be made more attractive. At the same time, anyone familiar with the interests of today's students would have a hard time believing that test score shifts alone will have much impact on increasing enrollments or drawing in stronger students. In the longer run, it is quite likely that balance in the supply and demand equation is most likely going to be produced by changes in the jobs of teachers first and foremost, and not by changes to improve the quality of output of the certification process. Since there is every reason to believe these changes in job rewards will be harder to come by and take more time, we might take our quantity of teacher losses now and get the quality up.

As states move beyond simply raising test scores to calling for combinations of pre-professional screening tests, improvements in student teaching experiences, and longer probationary periods, the task of predicting later supply and demand situations becomes more complex. Also, these efforts to change certification practices are new and, literally, there is no experience in the states on which another state could rely for even crude estimates of enrollment impact. It does point out the necessity for all to be concerned with the data-gathering efforts in those states furthest along so that others can profit from their experience.

The intent of the new changes in the certification process is to improve quality. In the short run, it is hard to imagine these changes accomplishing that without decreasing the supply. This is a price that may necessarily have to be paid.

What Will the Improvements Cost?

The straightforward answers are (1) that we don't really know the price of these improvements, and (2) it will depend. Straightforward? Maybe. But helpful? Not very. Cost figures probably can be found, but they will take some digging out. They will need to be broken down according to the particular elements in the process in which one is interested,

such as validating and setting new standards on the NTE, developing new competency tests specially for a particular state, developing a pre-professional screening test, or dramatically modifying the student teaching experience. Costs will depend on which of these a state includes in its approach and how much time is given to develop and begin the new procedures. Georgia, as an example, has one of the most complex approaches, but it began developing the program many years ago and has spread the costs over those years.

Any view of costs, however, should attempt to balance those possible costs against the positive value of achieving the desired goals or the costs of doing nothing and letting matters stay where they are. Again, the Georgia experience might provide a good illustration. According to the director of the Georgia Teacher Assessment Project, three years have been spent developing the instruments for observing and rating teacher behavior. The assessment package has been field-tested for two years in more than 10,000 teacher assessments. Some 3,000 educators are trained now to administer the assessment, and the state has established 17 regional assessment centers. The entire effort has cost the state an estimated \$2 million thus far, but that compares to \$800 million that Georgia schools spend on teacher salaries each year.

Are the Changes Working? Is Teacher Quality Getting Better?

It is too soon to tell, but some of the early signs are encouraging. Many of these approaches are quite new; some of the complex and comprehensive efforts, such as those in Georgia, are unfinished; and the total effect can't be assessed for some time yet. Others, such as the North Carolina effort, are still just plans and, with the exception of the increased NTE score levels, offer little to evaluate. But this isn't the sole constraint.

In candor, it must be said that several of the efforts appear to have made no provision for even the simplest of systems for making judgments about gains in teacher quality after the new alterations to the certification process are made. It is most unlikely that in these states, even after several years of use of their new systems, they will be able to provide public policy bodies with helpful data to answer the question "Did all of this make any difference?" But, even in these states, it is not too late to begin evaluation efforts to remedy this weakness in their approach.

Some Positive Results Are Being Noted

Preliminary and fragmentary data do suggest that it is reasonable to expect some positive effects. For example, in Georgia, 56 elementary and high school classrooms in the state were studied. The subjects of the study were beginning teachers. Trained observers rated these teachers on their use of the identified teacher competencies and compared these ratings with achievement gains made by students. The results showed statistically significant correlations between teacher performance and student achievement in 80 percent of the possible combinations.

Another study, done at the University of North Florida, showed similar results. Here the researchers were working with a list of 13 generic teacher competencies similar, but not identical, to those used in Georgia. The teachers were students who had completed their graduate programs with the exception of practice teaching, and were teaching in their own classrooms in public schools within Florida. This study is particularly interesting in that the students being

taught in the classes were all identified as mentally retarded, learning disabled, or emotionally disturbed. The teachers were given training on these 13 key competencies and then checked by supervisors to see if they were consistently using them. From the results, the research concluded “. . . that the teachers . . . did in fact bring about significant achievement gains in exceptional pupils and that those achievement gains were in fact greater than those which could be expected within a normal population.” This study was done on a small, rather special sample and has some methodological weaknesses but does suggest both that these competencies can be taught and when applied by teachers they have the potential for improving achievement.

We also have the question of whether prospective teachers who do poorly on certification screening tests can themselves learn what the tests are requiring. Reports from North Carolina suggest that they can, particularly if they are told immediately of their weaknesses and given remedial instruction. Other reports from North Carolina indicate that students who initially do poorly on areas covered by the general education program of the universities can improve significantly in these areas. Reports from Georgia indicate that prospective teachers who do better on the specially developed Georgia competency tests tend, when they are teachers, to have classes which perform better than do classes of lower scoring teachers.

While the present information on whether or not the new requirements are having immediate or longer term positive effects is sketchy, some rather able education administrators are acting as if they do, and are trying to bring their students along to meet the new standards. While this is not proof, it does show that individuals, in positions where they ought to know, believe these efforts are effective or at least they should be attempted.

Florida offers some good examples of this phenomenon. In the Florida plan, all applicants for Florida teaching certificates must pass a competency test to qualify. In a pilot field test this spring of the new requirements, nearly a third of the prospective teachers failed to score high enough to pass. This Florida test covers mathematics, reading, and teaching skills, and a candidate must pass all three sections. The high failure rate is distressing, but in interpreting the results it should be kept in mind that it was a field test, the first administration of the test, and it was known it would not be used for awarding certification at that time.

Nevertheless, many of the Florida colleges and universities have moved to beef up their programs. For instance, the University of South Florida has begun giving its own competency test to students during their first term of enrollment. Students must pass the test before they are allowed to enter the mandatory one-year internship in a school, which is required for certification. The university also is starting a program of extra help for minority students who appear to need additional assistance, and more math credits are now being required of all students for graduation. In addition, a more selective admission requirement will be instituted for the college of education at the university.

This last internal change at the University of South Florida—the requiring of higher admission standards—ought to remind us of a now old but still valuable piece of information. The well-known Coleman report, a product of the early 1960s, attempted one of the most exhaustive analysis of factors contributing to the achievement of students in the schools. The Coleman study turned out to be one of the most heavily analyzed, re-analyzed, discussed, and debated pieces of educational research ever, but one of its stronger conclusions was that the verbal scores of teachers were related to student performance.

Lacking any evidence to the contrary, it would seem reasonable to believe that efforts to improve the verbal ability of teachers should have favorable prospects going for it as a step to getting improved student performance. Since many of the new certification standards seem to

have been designed to bring about higher verbal skills on the part of prospective teachers, it would not be hard to argue that this approach does have at least a rudimentary empirical base.

Any evaluation design should attempt to find out just where the best results are found and why they occur. This means analytic attempts to see what connections there are between results on exit examinations or evaluations of probationary teachers in the field and the entry skills of the college students or the educational programs offered by the college.

But solid and sound evaluation studies are still in short supply. Comprehensive and comprehensible studies of the effects of the new quality improvement efforts are going to be needed. States must start now to design the research and collect the data.

Better Management is Essential

Changes in teachers will not be enough. Unfortunately, it is easy to get the impression, either from the legislative side or from the state education agency side, that the exclusive answer to our quality problem and student achievement concerns is to produce more teachers of high ability. Do not believe it. Examples abound in business and industry as well as in education that even the best and most capable workers will do less than their best or produce a lousy product if they are not managed well or work in a situation in which they can't or won't produce up to their fullest. States should not forget this simple piece of history as they go about their work. The work situation and the nature of the managers may turn out to be as critical as the training of teachers.

Who will develop the lists of competencies required of good educational managers? What are the minimal competencies required for managing a school? How are effective school managers best educated? How will the managers be evaluated? Given the better teachers we are going to be producing, does it follow that we should put them in the same old schools, run the same old way, and expect them to accomplish minor miracles, much less major ones? It will not work that way. There is as much reason to believe that the schools and those that manage them need a new hard look as there is to believe that it is only the teachers who need improving.

Until the public policymakers look hard at the managerial part of the problem, they really may be wasting money by training skilled teachers who cannot or will not work up to their potential in the institutional settings provided.

What Next?

Georgia is well along in developing a relatively sophisticated system for producing, evaluating, and improving teachers. North Carolina has a rather comprehensive plan, seems to be touching most of the bases, and has a healthy combination of cooperative efforts involving schools, universities, and state agencies working together. South Carolina has a comprehensive plan going at three levels, but it is still young and has some growing pains. Florida has many of the pieces either in place or under development. Other states, such as Louisiana, at this point still have models concentrating at one critical point. The same can be said for Tennessee and Mississippi. Texas appears to be moving, in a different fashion, in

the general direction of the more complex models. Few of the Southern states are not looking hard at the issue, but, as is to be expected, each is going about it in a way that reflects its unique starting point and set of priorities and constraints.

There is no objective way now to say which is best or even which one is most effective or efficient in terms of a state's needs and expectations. For some states now is still the time to watch and learn—beginning where it seems most can be done and leaving the options relatively open. The comprehensive plans make the best sense. But complexity shouldn't be equated with goodness. One does not have to start by going off in all directions at once.

One thing is clear—now is very much the time for each state to learn from the other. Today is when we should develop simple, low-cost systems for sharing information, experience, and to avoid each state reinventing the wheel. Now also is the time to form task groups, consortia, or whatever seem best for gathering the data that will permit getting a handle on some of the critical questions. The critical question list include: how to evaluate different credentialing approaches; how to deal with interstate migration when credentials are shifting—should we develop a common interstate certification; and, if we do, what should it look like. There are a host of other questions for which before long—relatively soon for some—we'll wish we had answers. The biggest waste now may not be money, but time, by not profiting from each other's rather sizable and taxing efforts to get teacher quality in the South up to where we want it to be.