This report summarizes and highlights what transpired during the four-part conference entitled "Improving Teaching." The purpose of the series was to bring together educational leaders to discuss questions relating to training, attracting, and retention of good teachers in Connecticut. The material is organized according to the conference topics and includes under each topic all pertinent data, commentary, questions, etc. Each of the sessions featured a different national expert who had studied and written about the topic under discussion. Conference topics were: (1) the coming crisis in teaching; (2) attracting the teachers needed for today's world; (3) prospects for the professionalization of teaching; and (4) a report on the Connecticut Governor's Commission on Educational Excellence and Equity. (JD)
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Lorraine M. Aronson
Deputy Commissioner
Program and Support Services
IMPROVING TEACHING

A summary report on a series of four statewide conferences sponsored by the Connecticut State Department of Education in cooperation with the Regional Educational Service Centers and the University of Connecticut School of Education.

Prepared by
Professor Ronald LaConte
University of Connecticut
I. Coming Crisis in Teaching
Speaker: Linda Darling-Hammond
Senior Social Scientist
The Rand Corporation
Washington, DC
Reactor: LeRoy E. Hay
1983 Connecticut and National Teacher of the Year
Manchester Public Schools

II. Attracting the Teachers We Need for Today's World
Speaker: C. Emily Feistritzer, Director
National Center for Education Information
Washington, DC
Reactor: Mark Shibles, Dean, School of Education
University of Connecticut

III. Prospects for the Professionalization of Teaching
Speaker: Gary Sykes, Research Director
California Commission on the Teaching Profession
Reactors: Robert F. Eagan, President
Connecticut Education Association
George G. Springer, President
Connecticut State Federation of Teachers

IV. A Report on the Governor's Commission on Educational Excellence and Equity
Speaker: Arthur E. Wise
Senior Social Scientist
The Rand Corporation
Washington, DC
Panel Discussion: Implications for Connecticut
Panelists: Sandra H. Ginnis, Principal, Simsbury High School
Claire S. Gold, Superintendent, Westport Public Schools
Rocco Orlando, Dean, School of Education, Southern Connecticut State University
Rosa Quezada, Assistant Superintendent, New Haven Public Schools
Thomas J. Sullivan, 1985 Connecticut Teacher of the Year, Regional School District No. 4
Gerald N. Tirozzi, Commissioner of Education
In the spring of 1985 the Connecticut State Department of Education in cooperation with the Regional Educational Service Centers and the University of Connecticut School of Education sponsored a series of four statewide conferences collectively titled "Improving Teaching." The intent of the series was to bring together educational leaders from throughout the state to focus their attention on questions relating to our ability to train, attract and retain good teachers in the coming years. The first three conferences, held on consecutive Thursdays in April, were devoted to considering aspects of teaching that are currently receiving national attention: "The Coming Crisis in Teaching"; "Attracting the Teachers We Need for Today's World"; and "Prospects for the Professionalization of Teaching." The final conference in mid-May was devoted to a closer look at the problems in Connecticut and was divided into a presentation of "A Report on the Governor's Commission on Educational Excellence and Equity" and a panel discussion of "Implications for Connecticut."

Each of these sessions featured a different national expert who had studied and written about the topic under discussion. The first three sessions included reactions by key Connecticut educators; all sessions contained an extensive period of audience questions and comments.

The conference series was extremely successful in helping to raise the issue of how to improve teaching. Between 100 and 150 Connecticut educators attended one or more of the conference sessions and brought their questions to our national experts.

This summary report is intended to continue that process of raising issues, heightening awareness and proposing new directions that will lead to school improvement as Connecticut continues its commitment to recruit and maintain a high quality teaching force. The challenge is evident, the effort is necessary, and Connecticut students will benefit from our efforts.

Special thanks go to

- John Allison and Valerie Watt of the Capitol Region Education Council for organizing and managing the conference series, and to the five other Regional Educational Service Centers for helping to promote the program.

Our appreciation also to

- Professor Ronald LaConte and Dean Mark Shibles of the University of Connecticut, School of Education, for preparing this summary of the series;
Maloney High School and the Meriden Public Schools for hosting three of the conferences;

- each of the speakers, reactors and panelists who participated in the series;

- those who attended one or more of the conferences.

I urge educators in Connecticut to review this summary report and Teachers for Today & Tomorrow: Recommendations for Attracting, Preparing, Retaining and Rewarding Teachers in Connecticut (the report of the Governor's Commission on Equity and Excellence in Education--June 1985).

With these reports before us, the 1986 session of the Connecticut General Assembly will be an opportunity for our state to once again demonstrate its leadership in continually improving an already excellent system -- its public elementary and secondary schools.

Gerald N. Tirozzi
Commissioner of Education

Hartford, Connecticut
November 1985
This report summarizes and highlights what transpired during the four-part conference series. In trying to distill this amount of material into a brief report, a number of choices needed to be made. It became obvious from the outset that a straightforward chronological report, summarizing each session in turn, would be awkward and uneven -- and far too long. I elected instead to organize the material according to the conference topics and to include under each topic all the pertinent data, commentary, questions, etc., regardless of when they had been originally offered. Thus, a comment on impending teacher shortages that was made during session four was included with the other commentary on teacher shortages that occurred during session one when the topic was originally raised. In this way I hoped to give every topic the fullest treatment possible in the least amount of space. In reporting a conference this diverse, attribution was also a problem. On the one hand, for the sake of accuracy and fairness, I wanted to be sure to attribute comments to the appropriate speaker or source. On the other hand, to load the report with footnotes or textual citations would have made it cumbersome and awkward. I have tried to solve the problem by identifying each main speaker by code initials in parentheses throughout the report to indicate to which speaker or speakers key points should be attributed. The initials after the names of participants appear in the text next to the ideas they expressed. (See next page for code initials.) Unfortunately, it was not possible to credit individual comments or questions from members of the audience.

This is not a verbatim report. It is, rather, an attempt to record the observations, comments, data, questions, issues and suggested solutions and courses of action that emerged during these conferences in as brief and comprehensive a form as possible.

While several people helped in the preparation of this summary, the ideas are my interpretations of the participants' comments and writings, and they do not represent official positions of the University of Connecticut or the Connecticut State Department of Education.

The reader wishing more detailed information and elaboration of positions is directed to the list of references at the end of this report.
PARTICIPANTS

In the text, code initials of the participants (e.g., D, F, S, etc.) appear in parenthesis next to statements to attribute the ideas and information to each of the participants. The initials used are:

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<td>Linda Darling-Hammond</td>
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BEST COPY AVAILABLE
There is a crisis coming in teaching. In fact, the early stages are already upon us, but it is a crisis considerably different from that described in many of the recent national reports on the condition of education. The problems we face have less to do with length of the school day or year, number of courses in specific subjects, or the organizational patterns in schools than they do with our increasing inability to attract and retain high quality teachers. (D, F, W)

Current efforts at school reform dictate more hours of instruction, more advanced courses, more testing of students, more frequent and more rigorous evaluation of teachers, in short, sharply increased demands on a teaching force that is already becoming smaller and less qualified. If we do not quickly address this rapid deterioration of the teaching force, the hope of achieving the other reforms called for in the national reports is very dim. (D)

The data are very clear. In some subject areas the problem is already critically acute. For example:

- Fewer than a third of American high schools have physics teachers on their faculties.

- In 1981 all the nation's colleges and universities granted fewer than 1,400 bachelor's degrees in mathematics and science education combined.

- Fewer than half of these, less than 700, entered teaching. That amounts to less than one mathematics or science teacher for every ten school districts in this country.

In the following year, about 29,000 mathematics and science teachers left their teaching positions and about half of them left teaching altogether. Thus, for every newly trained mathematics or science teacher entering the profession, about 12 left. Since that time the situation has grown steadily worse. If historical patterns have held, only about half of the 700 who entered in 1981 are still teaching. (D, W)

The National Science Teachers Association estimates that in ten years we will need 300,000 new mathematics and science teachers, which is 50 percent more than the total current mathematics and science teacher force. At current rates of preparation of new teachers, there is no hope of even coming close to meeting that need. (D)

While the shortage of mathematics and science teachers is the most visible aspect of the problem, declining enrollments in teacher education programs portend an imminent and widespread deficit in numbers of teachers needed in all areas.
Total enrollment in colleges and universities increased by nearly a third between 1973 and 1983, enrollment in teacher education programs decreased by more than a third during the same period, and the number of actual new teacher graduates dropped by 53 percent.

According to data developed by the National Center for Education Statistics, we will require about 170,000 additional teachers in 1986. Current enrollment figures, however, indicate that only 88,000 teacher education graduates will be available to meet that need. (F) Whereas in 1971 more than 20 percent of the bachelor’s degrees conferred were in education, by 1981 that figure had fallen to less than 23 percent. (D)

All available data point to the same conclusion:

The shortage currently experienced in mathematics and science is a forerunner of a more general shortage of elementary and secondary teachers which we will begin to see as early as 1986 and which could become critical by the early 1990s. (F, D)

The most immediate effect of these shortages is the employment of unqualified or underqualified teachers, a problem which has already reached serious levels in science and mathematics. In 1981 fewer than half the newly hired mathematics and science teachers were certified, or even eligible for certification, in the subjects they were assigned to teach. Although more recent data are not available, the assumption is that the situation has grown worse. Again, while the problem is most acute in science and mathematics, it is not limited to those fields. The 1981 data show that more than a third of the newly hired teachers in social studies and English were not certified or certifiable to teach these subjects. (D)

While these data describe the overall national state of supply and demand, they give a somewhat distorted picture of the shortage problem. We are faced not only with an insufficient number of new teachers but with distribution patterns that result in severe shortages in some communities and surpluses in others. While the affluent suburbs continue to attract more teachers than they can employ, the large urban areas are already nearing the desperation stage in seeking new teachers. (S) Cities such as New York and Los Angeles recruit nationwide in an effort to fill 3,000-5,000 vacancies a year. In major urban areas the projected national shortages are already a grim reality. (Q)

One reason for this imbalance between supply and demand lies in demographic trends. An unexpected increase in the birthrate early in the 1980s ended a decade of declining enrollments and will begin to cause enrollment increases in 1985. At the same time the college-age population, from which beginning teachers traditionally emerge, will continue to shrink through the 80s and into the 90s. In addition, as
mentioned earlier, the projection of college graduates receiving degrees in education has decreased drastically, partly as a response to the teacher surpluses of the 1970s. Demographically, then, we have a situation in which the lines of supply and demand are moving in opposite directions. (D)

What makes this teacher shortage different from those of the past is that its causes are not limited to demographics alone. For most of this century American education has relied on a "captive" labor force of women and minorities, talented people who frequently chose teaching as a career because they had relatively few other professional occupations available to them. The situation has changed dramatically.

In one decade, between 1970 and 1981, the proportion of women receiving degrees in education shrank from 36 percent to 17 percent, more than half. In only six years, from 1975 to 1981, the proportion of black students receiving degrees in education dropped by more than a third. Similar declines occurred among members of other minorities. (D, W) This shift has been particularly detrimental since it has been qualitative as well as quantitative. That is, those who have chosen other professions, especially among women, have been largely the most academically talented and able. (D)

In addition, teachers' salaries and working conditions have deteriorated rapidly during the past decade. Never a highly paid occupation to begin with, teaching has become among the poorest paid professions in the United States. In real dollar terms, teacher salaries declined by 15 percent between 1971 and 1981, a period in which other professions were making substantial gains. Not only are beginning salaries far below those of other fields competing for college graduates, but teachers' salaries cap out at a lower level much earlier than those of engineers, scientists, lawyers, accountants, and other professionals. This poor salary picture, combined with a high degree of dissatisfaction with working conditions (approximately 40 percent of practicing teachers say that if they had it to do over again they would choose another career) has resulted in making teaching a far less attractive career than it was ten years ago. (D, W)

This level of dissatisfaction among practicing teachers is due in part to the difficulty many of them have had in adjusting to changes in the student populations, changes that have, for a number of reasons, operated to make teaching a more demanding occupation at the same time it has become financially less rewarding. Today's public school students come from radically different family structures, cultural backgrounds, and socioeconomic groups than did the children of only 15 years ago.
Today one in five children lives in a household with a mother but no father present. The number of female heads of family, with no husband present, has doubled since 1970 and tripled since 1960. Forty-seven percent of black women maintain families of their own children without a husband present. Only 49 percent of married-couple families have children today, compared to 57 percent in 1970, and only 27 percent of all householders have children living with them. More than half the married couples who have children living with them are both working. Seventy percent of one-parent householders work. Almost 25 percent of all family households added since 1980 are maintained by women. One in five children born in 1982 was illegitimate. About 65 percent of today's children come home to an empty house after school. (F)

Not only do today's students come from vastly different family structures, they also come from shifting demographic groupings. Minority populations are growing at a much faster pace than whites, and populations in cities are growing faster than in other areas. The new baby boom is nonwhite.

- The number of whites under five years of age in the total population decreased by 2.7 percent from 1970 to 1982, while the number of black children under five increased by 11.6 percent.

- The total white population, children and adults, increased by six percent from 1970 to 1980 and slipped from 87.4 percent to 83.2 percent of the total population during the same period.

- For all age groups, the black population increased 49.5 percent from 1960 to 1983, the white 25.8 percent, and the other racial groups 29.5 percent.

These increases represent not only shifts in birthrate but patterns of immigration as well. Demographic projections show a continuing growth of nonwhite minorities, especially among the young, for the remainder of the century. Most of the growth in minority population is expected in the urban areas. (F)

Finally, more of today's students come from impoverished households, a trend which is expected, unfortunately, to continue.

One in five children in this country now lives below the poverty level, and 23.3 percent of those under six are poor. Over 70 percent of the children living with black female householders are classified as poor. Between 1973 and 1983 the percentage of children (under 18) living below the poverty level increased from 14.2 percent to 21.3 percent. Among black children the increase was from 40.6 percent to 46.3 percent. Among Hispanics the figure jumped from 27.8 percent to 37.8 percent, and among white children from 9.7 percent to 13 percent. (F)
In summary, we see a public school system receiving increasing numbers of poor children from nontraditional and even unstable homes, "latch-key" children from working families, non-English-speaking children, children with a variety of special needs and all making increased demands on a constantly shrinking corps of less qualified teachers. This is the essence of the crisis in teaching and learning before us. (D, F)

ATTRACTION THE TEACHERS WE NEED FOR TODAY'S WORLD

If we grant that we are facing a critical shortage of qualified teachers able to meet the needs of a changing student population, the immediate question becomes that of what we must do to attract talented people into the profession. As suggested earlier, resistance from prospective teachers and complaints from practicing ones center on the two basic problems of salary and working conditions. The former requires significant reform of the financing of education and the latter reform of the organizational structure, personnel policies, and management of the schools. (D, S, W, F)

Salaries

Throughout this conference series every speaker, reactor, panelist and questioner who addressed the question agreed that teachers' salaries are far too low and require immediate attention if we are to attract and retain the teachers we need. The present data are grim indeed.

- Average starting teaching salaries in Connecticut were about $13,800 in 1984-85 while the average starting salaries in alternative occupations for college graduates ranges from $18,000 to almost $30,000.

- It requires 13 or 14 years of service for new teachers to begin to earn what some of their college classmates earned during their first year. And after 15 years or so most teachers reach their maximum salary while their counterparts in other occupations have the opportunity for additional financial growth. (D)

- As the years go by, the gap between teachers' salaries and those of other occupations grows, despite the fact that teachers go on for additional education and advanced degrees. Furthermore, not only have teachers' salaries been steadily declining (in real dollar terms) for over ten years, but this decline represents a shift of allocation of funds within education.
Between 1971 and 1981 the proportion of educational expenditures devoted to teachers' salaries dropped from 38 percent to 29 percent. (D)

In a nation in which an individual's worth is frequently measured by income level, teachers have come to feel more and more like second-class citizens. (H, SH)

Serious as the salary situation is, however, higher pay in and of itself will not forestall the coming teacher shortage. Participants in the conferences agreed that higher salaries were a necessary, but not sufficient, condition for attracting and retaining new teachers. Traditionally, teaching has been a low-paying occupation that has attracted many who felt it was a calling, who wanted to work with children and make a contribution to society. To many of these people, today's schools seem mere educational factories, turning out standardized products instead of thinking, creative human beings. (D, W)

Support Systems

Teachers feel they lack support: adequate facilities and materials, clerical services and administrative support that would provide a school environment in which their work is valued and encouraged rather than obstructed by interruptions and nonteaching duties. (D, W) In many ways schools have become tight bureaucracies insisting on administrative control, prescribed instructional goals and techniques, and increased standardization of curricula all in the name of accountability. (W, D) According to a recent Rand study, complaints of this sort are particularly sharp among the most academically talented and qualified.

While half of all new teachers leave teaching within seven years, two-thirds of the most academically talented leave while two-thirds of the least academically talented stay. (W)

Obviously, then, if we are to attract and retain the most talented people in teaching, we must change the conditions that drive them away.

The first step must involve higher salaries. A starting salary of $20,000 or more (in 1985 dollars) is an absolute essential, with a career maximum of $50,000 (1985 dollars) obtainable in a reasonable number of years, perhaps 15. (D, SU, H) Salaries must be based on a broader range of criteria than level of schooling and years of experience. Salaries should reflect both what and how a teacher teaches. This requires a much more precise definition and accurate measurement of good teaching than we now have. (F) Some of the money needed for improved salaries could come from a reallocation of existing funds resulting from restructuring of the school organization. If teachers
take on tasks currently performed by administrators. (e.g., curriculum development and supervision) funds could be shifted away from administrative salaries to teacher salaries. (D)

Simultaneously, funds should be directed into scholarships and forgivable loans to academically talented students to induce them to enter teaching. (D) We should also do a better job at the high school level, promoting the benefits of teaching as a career -- including its freedom from most of the pressures of the "rat race" -- among pre-college students. (G) We might also look closely at the growing pool of older Americans who might see teaching as a "second career." These older citizens could be recruited into teaching not just because of their availability, but because of their wisdom and experience as well. (F)

We should also promote teaching as a "beginning career," establishing what would be essentially a two-tier system in which the great majority of those entering the profession would be expected to stay no more than three to five years before moving on to other, more lucrative professions. (S, G, F) A smaller number of especially talented and able teachers would move into a "master teacher" category and would be paid on a level with top school administrators, $60,000 - $80,000. These master teachers would assume primary responsibility for training beginning teachers, staff development and curriculum development but continue to teach part-time. (S) Such an approach might entail "cafeteria style" benefits packages that allowed individuals to move easily out of teaching after a few years without feeling they would not have too much tied up in a retirement program. (S)

If academically talented teachers are to be retained in teaching, they must be given time for reflection and personal growth. Teaching responsibilities and other duties must be reduced enough so that teachers have time to think about what they are doing and why. (H) Teaching would also be more attractive if it included more opportunities for "recycling": sabbaticals, study leaves, exchanges and other means for teachers to get away for a short period and return to the classroom reinvigorated. (G)

In order to make the changes necessary to attract and retain sufficient numbers of high quality teachers we can take either of two approaches. The first is to make improvements to the system we currently have. This approach assumes the present system is essentially sound and needs nothing more than relatively minor adjustments and modifications to make it into the kind of enterprise that will attract and hold lively, intelligent practitioners. The second approach is to argue that the system as it exists is no longer adequate, that it fails to recognize basic changes in today's world and, therefore, requires fundamental restructuring. (S) All of the conference speakers chose some form of this second approach. A few panelists and questioners from the audience, however, suggested that the realities of the present social and economic climate would not allow for the degree of upheaval such fundamental restructuring implies.
Those who argue for broad, basic change contend that the 1980s have ushered in new attitudes toward work among more highly educated, white-collar employees. Workers generally, but especially bright, eager college graduates increasingly reject unappealing, unsatisfying jobs even if these jobs are highly paid. The rising demand for a greater degree of occupational autonomy, flexibility, and even (among salaried workers) entrepreneurship is already resulting in significant and basic changes in the corporate sector. The private sector, and especially the schools, have been much slower to incorporate such changes and even recognize the need for them. In fact, the "back to basics" movement and accountability pressures have pushed schools in the opposite direction. (S, W, D)

By focusing so much time and attention on the mastery of so-called basic skills, frequently relying on highly prescriptive techniques, "teacher-proof" materials and standardized tests, the schools have neglected the development of higher order thinking skills and imaginative reasoning that are so important in today's world. (S, W, D) The charge that Johnny can't read or write is being superseded (or perhaps merely joined) by the more serious charge that he can't think. Regardless of the validity of such charges, they are particularly serious when made by an increasingly older, childless population which can be expected to support public education only so long as it appears to be performing an essential public service. Taxpayers who formerly measured the schools' success by what they saw in their own children are being replaced by taxpayers who judge the schools' effectiveness by what they read in newspapers and see on TV screens.

Thus, the public evaluation of education, and its resultant attraction as an occupation, is increasingly dependent upon how well it is perceived to be meeting the changing economic and social demands of today's world. (S, F)

PROSPECTS FOR THE PROFESSIONALIZATION OF TEACHING

If we adopt a fairly rigorous and specific definition of the term "profession" and use it not merely as a kind of honorific to describe any occupation (for example, a "professional athlete" or "professional bartender"), then there is some serious question as to whether teaching, as currently organized and practiced in most public schools, deserves the name. (W) All four speakers and several panelists and reactors noted that the lack of genuine professionalism is one of the
most serious problems facing teaching in terms both of attracting and retaining good people and of providing the kind of schools and education today's kids need.

A true profession is marked by certain features that serve as both identifying characteristics and operational guideposts for its practitioners. Initially, there is a period of long and rigorous preparation for entry into the profession. This preparation is necessary because the practitioner must first master a specialized base of knowledge before beginning practice. This mastery is normally accomplished by means of a long period of formal study (typically at a college, university or other professional school), measured by the passage of an examination, or series of examinations, and recognized by the awarding of an appropriate degree or certificate. Induction into the profession is ordinarily accomplished by means of an internship under the close supervision of experienced practitioners during which the aspiring professional learns how to translate theory into practice. Once accepted into the profession, the practitioner is expected to make careful judgments in behalf of clients. Professionals are held to an ethical standard that presumes the professional knows more than the client but serves the interests of the client. This ethical standard, and the others to which the individual is held, constitute a set of peer-defined standards of practice, and adherence to them is monitored by peer review. Finally, members of a profession expect to receive, and are generally accorded, increased responsibility as they acquire increased competence. (W, D)

If we apply this description to the situation of teaching as it currently exists, we find some serious deficiencies and mismatches.

The issue which drew the most attention at these conferences, at least in terms of the number of people who addressed it, was the nature and quality of the requirements for entry into the profession, especially the effectiveness of current college and university teacher education programs and the variability of state certification standards.

One criticism is that in many colleges, especially smaller ones, teacher preparation programs have become little more than expedient routes to a college degree rather than the first step toward entry into a profession. Because teacher education programs require little financial investment, they have become attractive "money makers" for small colleges which have established marginal programs largely because of the tuition they bring in. Since 1973, during a decade of sharp decline in the total number of students enrolled in teacher education, the number of teacher preparation programs in colleges of under 1,000 enrollment increased by 51 percent. (F) This proliferation of programs has led to a lowering of admission standards, as colleges, especially smaller ones, compete with each other for a shrinking pool of students so that today far too many teacher training institutions accept anybody and everybody who harbors the slightest aspiration to teach. Many of these programs are characterized by courses that are ill-defined and frequently impractical. The end
result is that for far too many teachers, the requirements for entry into the profession have been anything but rigorous. (F)

In addition the wide variation in certification requirements from state to state, and large number of different certified specialties within states, lead to enormous confusion as to the nature of the specialized body of knowledge entrants into teaching are presumed to have mastered. Because teaching lacks any well-established, widely recognized entry examination, the contents of teacher education programs, and the nature of knowledge the new entrant has mastered, are left largely to chance. (F) Finally, aside from student teaching experiences of different lengths and intensity, teaching lacks the kind of closely supervised internship characteristic of other professions.

Once on the job, teachers are seldom accorded the kind of autonomy and freedom to make informal judgments in behalf of their clients typically enjoyed by other professionals. (W, D, H, S) Instead they are "infantilized," (G) subjected to administrative rules and testing programs intended largely to ensure that they are performing as instructed. In the name of efficiency and standardization, bureaucratic control has replaced teacher autonomy and the teacher's freedom to exercise professional judgment severely circumscribed. (W, D, G) They are treated, in the main, as functionaries in a hierarchical bureaucracy.

Peer-defined standards of practice are virtually unknown in public elementary and secondary schools. (D) The standards to which teachers are expected to conform are established primarily by boards of education and administrators, but come also from publishers, textbook selection committees, legislators and a variety of other sources that attempt to determine how and what a teacher will teach.

With the possible exception of secondary school department heads, teachers normally do not gain increased responsibility as they demonstrate increased competence. There are, to be sure, "team leaders" or acknowledged "in-house" teacher experts in certain subjects or skills, but the vast majority of teachers teach the same number of students in the same timetable with the same administrative expectations regardless of how well or how long they have done it. Rather than trying to match responsibility to competence, schools differentiate among teachers almost exclusively by means of salary, rewarding experience and increased education, irrespective of demonstrated competence. (S)

Teaching, obviously, has a long way to go before it can call itself a true profession and expect in return the public respect and occupational attractiveness enjoyed by fields such as medicine and law. (W, F, S)

An immediate task, one on which all participants who spoke to the subject agreed, is the improvement of entry-level requirements,
particularly teacher education programs and certification standards. What, precisely, should be improved and how is a much thornier question. The most frequent suggestion was to lengthen the teacher education program from four to five years, and to add a full year of closely supervised internship during the first year of teaching. (W, F, G, S, H) This could be accomplished by means of a four-year academic major in a traditional subject (e.g., chemistry or French) followed by a year's work in the theory and practice of education. (F) Or it could take the form of a five-year integrated program in which prospective teachers would take a full program of arts and science courses along with their work in education. (W) The subsequent year-long internship should be much more than a year of on-the-job training. It should be a carefully planned and closely supervised opportunity for the beginner to learn how to translate theory into practice under the guidance of a highly qualified mentor. (W) Finally, the entry-level requirements should include the successful completion of a carefully designed examination, similar to the medical boards. (S, F) Initially the passing of such an examination might not be tied directly to entering the profession. It could be used in much the same way that the Certified Public Accountant examination is currently used -- to identify the exceptionally skilled and competent. (S)

There are, however, conflicting views. Some suggest that longer periods of teacher preparation will not necessarily produce better teachers. (Q) Nor will increased emphasis on traditional academic subjects. Years of scholarship in a discipline have not turned every college and university profession into a skilled teacher. (G) In fact, graduates of many current teacher education programs do complete majors in subject areas with grade point averages that parallel those of majors who do not expect to teach. (SH) Nor has anyone yet demonstrated clearly that high academic achievement in college courses is a strong indication of success as a teacher. (O) There is also considerable question as to whether more academic courses will be appropriate preparation for teaching the increasing numbers of poor, nontraditional students in our schools. What is required, apparently, is a much higher level of consensus on the characteristics of good teaching and good teacher education if we are to identify the good and eliminate the bad. (F)

Such a level of consensus does seem to be slowly forming on the belief that school bureaucracies must be curtailed if we are to have truly professional teachers.

Much of the decision-making authority and organizational power now held by school administrators must be returned to the hands of teachers. (W, S) Some sort of staff differentiation, based on a system of peer rating and review rather than administrative evaluation, is essential to allow teachers the freedom to exercise genuine professional judgment. (W) Under the present system even the most enlightened administrator is faced with a span of control that makes genuinely supportive and constructive supervision almost impossible.
With responsibility for the direction of anywhere from 20 to 150 teachers, the typical principal is hard-pressed to ensure that all is running smoothly, much less supply the kind of personal developmental support teachers deserve. (GI) A truly professional teaching staff, on the other hand, composed of teachers of differing, and recognized levels of competence, could assume responsibility for both supervision and development. (S) These thoughts and the experiences of some successful teacher evaluation programs have caused a renewed interest in peer evaluations. (W)

The task of professionalizing teaching is both enormously complex and politically formidable. The reforms involved amount to nothing less than a major overhaul of the entire educational enterprise, including dismantling an "old-boy" administrative hierarchy, revamping the teacher education process and redefining school and college responsibilities, reorganizing and restructuring the teacher corps itself, reviewing and revising the process of certification and licensure, and reeducating the taxpaying public which will be asked to pay the bill. Reform of this sort has never been attempted in American education, and there is serious question as to whether it can be begun, much less accomplished. The alternative, however, is to see our public schools increasingly staffed by marginally qualified teachers who operate more as monitors, keeping order and carrying out instructions, than as enlightened molders and shapers of the young. (S, F, W)

RECOMMENDATIONS OF THE GOVERNOR'S COMMISSION ON EDUCATIONAL EXCELLENCE AND EQUITY:
IMPLICATION FOR CONNECTICUT

In terms of the total array of problems facing education across the nation, the good news is that Connecticut has more time than most states to solve them; the bad news is that, given the complexities of both the problems and the proposed solutions, there may not be time enough.

For example, measured against national standards, Connecticut's teachers' salaries are higher than average and are growing considerably faster than those in 42 other states, and teachers' salaries currently account for 42.5 percent of Connecticut's total educational expenditure, again, above the national average. In 1984 the 8.3 percent increase in Connecticut's teachers' salaries ranked 8th in the nation. (F)
Also, in national terms, Connecticut is not beset with as serious an array of demographic problems as many other states. Because its current rate of population growth ranks 30th among all states, it is being spared some of the more severe impact of the new "baby boomlet." Likewise it is no worse than typical in regard to the other demographic shifts and changes in family structure that are altering the school-age population. (F)

Even more important, according to a recent supply and demand study conducted by the Connecticut Department of Education, the state will probably not experience a dramatic shortage of teachers in the near future. While the demand for new teachers in elementary education, special education, science and mathematics will remain strong and even intensify, these shortages should not reach the critical stage in the near term. What shortages occur will most likely be in particular subject areas or specific regions of the state. Competition within the state for available teachers, however, could become intense, especially if the wide -- and widening -- gap between the wealthy and poor districts is not drastically narrowed. Unless there is an unexpected drain of teachers away from Connecticut to other states with more attractive salaries or working conditions, the state should be able to avoid a general shortage of teachers for several years. (W)

In short, compared to other states, Connecticut has more time to address its educational problems before they become insoluble.

Against this background the Governor's Commission on Equity and Excellence in Education was formed in August of 1984 with one of its aims being "to study and recommend actions necessary to attract and retain high quality teachers." In order to meet its objectives, the Commission conducted extensive studies of the condition of education and the status of teachers in Connecticut. On the basis of these studies, it developed a set of recommendations for changes that would help to equalize educational opportunity throughout the state, improve the quality of teaching, and make teaching a more attractive profession. In developing these recommendations, the Commission examined and debated most of the problems and issues described earlier in this report. Therefore, these tentatively approved recommendations provided a useful framework for the final conference in the series.

Briefly the recommendations called for:

- Establishing a statewide (and state-funded) minimum teacher salary of $18,500 for 1985-86, which -- when adjusted for inflation -- is a salary of approximately $19,300 for 1986-87, the first year of the program;

- Providing state grant incentives, including a teacher-salary enhancement fund, that would help and encourage local districts, especially lower paying ones, to increase teachers' salaries;
• Raising from 40 to 50 percent the state portion of state and local education costs;

• Considering a requirement that all prospective teachers complete a five-year program including an undergraduate major in an academic field;

• Reviewing the feasibility of creating a professional standards board composed primarily of teachers to establish and administer certification standards;

• Redesigned teacher preparation curriculums based on closer involvement of colleges, universities, and local educators, and incorporating innovative features;

• Increased opportunity and support for teacher professional development;

• A reinvigorated cooperating teacher/student-teacher program, a strengthened mentor teacher/beginning teacher program, and a beginning teacher assessment program;

• A local development grant fund to encourage districts to design and implement such programs as career ladder differentiated staffing and improved teacher-evaluation systems.

These recommendations, while not representing a master plan for Connecticut education, are first steps that can be taken quickly to begin to correct some of the problems and inequities in Connecticut education. (W)

While the concept of significantly raising beginning salaries met with unanimous approval, the consensus of panelists and questioners was that the $18,500 figure (even when adjusted to $19,300) suggested by the Commission was still less than what competing occupations are already paying at the entry level. The goal is to establish a beginning salary that would be attractive enough to attract the kind of talented person needed in teaching.

Likewise, while there was strong agreement that teacher education is in need of substantial improvement, there was serious question as to whether a five-year program would be either effective or necessary. One problem is that the cost of an additional undergraduate year would discourage, or even prevent, entry into teaching by many students, especially minorities, who would be expected to balk at the prospect of trading a year's income in another occupation for a year's additional expense to become a teacher. (O) Another is that a post-baccalaureate fifth year that includes a substantial amount of closely supervised clinical practice leaves little time for adequate instruction of teachers, especially elementary teachers, in learning theory, methodology of teaching, curriculum development, and other education studies.
A related question involves the availability of so-called "alternative routes," programs or schemes that allow holders of bachelor's degrees, especially in a shortage subject area, to enter teaching quickly and then complete minimum certification requirements while on the job. Critics of these plans (and of intense fifth-year plans as well) contend that, if teaching is to become a true profession, teachers must be expected to master a body of specialized knowledge and theory relating to the practice of teaching. They contend that what is needed is a more rigorous, innovative, intensive program of teacher education that will genuinely prepare a prospective teacher for the classroom. Programs or regulations that imply that any holder of a bachelor's degree is equipped to teach, even temporarily, undermine the profession.

Finally, there was strong sentiment that more than higher beginning salaries or a salary enhancement pool would be needed to redress the educational imbalances in the state. Because of long-standing patterns of expenditure, wealthier districts already have in place attractive teaching environments, including high quality faculties. Even if salary scales were to be equalized across the state (an unlikely prospect), the other advantages enjoyed by wealthier districts would continue to make them more desirable places to teach. Additionally, as teacher training institutions look to the schools for clinical partners in the proposed school/college preparation alliance, they are likely to look first at those schools that already have the best staff and conditions, further enhancing their attractiveness. In short, what is needed is not merely financial parity but extraordinary efforts, both fiscal and professional, to bring the poorer districts up to the standards of the wealthier ones and provide genuine equity throughout the state. Given sufficient time, more nearly equal salary scales alone might bring about this leveling, but this approach would probably require more time than we have.

Indeed, if there was a single feeling that dominated this conference series, it was a sense of time running out. While Connecticut has not yet reached the point of crisis, it is certainly at the point of urgency. Our public schools are doing a good job. But we have serious problems with us already and more serious ones on the near horizon. They are problems that have been building for years and they will not be solved overnight. If we wish to prevent the situation from getting out of hand, we must act now. This conference series demonstrated clearly that, within the profession, we share an understanding of the broad outlines of the problems. What is required now is the unity of purpose and exercise of will to solve them. The solution process will demand open communication among educators, local and state officials, legislators, the business and labor communities, and others. Connecticut must meet this new challenge if it is to continue to be an educational leader in our nation.
REFERENCES


