The U.S. education system is perhaps history's greatest social achievement. But recognition of its success should not serve to obscure its shortcomings. There must be a stop to improving and muddling through with makeshift responses to the pressure of events. Instead, there should be plans to carry out a reasoned, rational, and practical reform of the teaching profession. Pupil-teacher ratios have been given major consideration over the past 10 years. Now, however, it is not realistic to talk of pupil-teacher ratios of 20 to 1 or 15 to 1; first, it is too costly, and second, there is evidence that flexible class grouping—large and small—makes for the most effective education. Differentiated staffing, flexible staffs, and the utilization of paraprofessionals must all be examined for their value potential in education today.
A PROFESSION OF CHANGE*

By S. P. Marland Jr.
Assistant Secretary for Education
Department of Health, Education, and Welfare

Teaching has properly been called the profession of change, and as these commencement rites carry you one large step closer to your ultimate objective --- a classroom or administrative office within a school system --- I think it might be wise if we considered together for a few moments just what changes you are likely to encounter and to help foster in your professional lives.

I choose to speak of change not only because it is inevitable, but because it is necessary and desirable. Whatever the risks involved in reaching for new ways to teach and learn, education has no other choice than to run those risks. For the greatest risk of all would be to sit tight, clutching our traditions to our bosoms, and hoping for the swift return of 1950.

But conceding the need to adopt new techniques and methods, and working fervently to reform those parts of education that are clearly unequal to the stresses that daily intensify, does not detract from the sweeping success of education in America. Whatever Illich, Kozol, Silberman, or dozens of other theorists may claim to the contrary (since nothing sells better than bad news), I maintain that the U.S. educational system of which you are a part is perhaps history's greatest social achievement.

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There are facts behind that statement: the growth, for example, in all levels of education, to the point where nearly one-third of the entire population --- more than 63 million people --- are now involved in education full-time. Indeed, while the general population has grown by half since World War II, elementary secondary school enrollment has doubled, and college enrollment more than tripled. And there are many other figures that can be cited to substantiate this thesis of success, many of them having to do not only with quantity, but with quality as well. Dramatically enhanced opportunities in higher education for the poor, for example, are demonstrated by the fact that a greater percentage of our black population now goes to college than a corresponding figure for all races in the nations of Western Europe. We can also look to the steadily rising academic standards at all levels of instruction, a phenomenon which has produced a swift increase in the proportion of certificated teachers. In 1956 more than 20 percent of our elementary and secondary teachers had less than a bachelor's degree; today that figure is under 3 percent.

But the grandest fact of all is this: from September through June, five and sometimes six days a week, 45 million American youngsters, from every conceivable set of environmental circumstances, with incredibly varying abilities and ambitions, with all the problems and potential of humanity itself, march into the open doors of public elementary and secondary schools of the United States. The overwhelming majority leave those buildings, day after day, year after year, with minds and spirits enriched, social responsibilities and cultural appetites stimulated, and capacity for further knowledge and human service greatly increased.

The circumstances of life in these United States today ---
the sweep of our social revolution, the shattering problems of our cities, the explosion of our knowledge, the dissent of our youth, and all the rest of it --- place the teachers of America at the very front edge of our dynamic social system. They are adapting courageously to the country's new and demanding expectations, inventively coping with problems that would have shaken their predecessors of a decade or two ago.

But recognizing the success we do enjoy must not blind us to our shortcomings. For the health of its practitioners and the future of education throughout the country, we have got to stop improvising and muddling through with makeshift response to the pressure of events. We must begin instead to plan and carry out a reasoned, rational, and practical reform of the teaching profession. We must begin to change the ways teachers teach, the efficiency with which their professional skills and intellectual talents are used or misused in the schools, the number of children they work with, and the circumstances under which they perform that work.

We must take, in sum, a new view of the teacher's place in our system of education, giving the teacher the opportunity not only to be more responsive to student needs, but also to find a far greater degree of professional fulfillment and satisfaction, and a larger degree of engagement in the decisions affecting the schools. In the face of greatly increasing expectations, at a time in history when technology and contemporary organizational techniques are reforming virtually every human enterprise, teaching remains a highly labor-intensive system, and education as an institution remains a cottage industry.
Over the past decade we have devoted major attention, as well a major part of our purse, to reducing the pupil-teacher ratio. Education's share of the Gross National Product has jumped from 4 percent to over 8 percent in the past 18 years. The number of public school teachers has grown during this time at a faster rate even than the number of pupils. At the opening of the fall 1972 semester, there were approximately 22 pupils for every teacher in U.S. public schools, compared with 25.7 pupils for each teacher 10 years earlier. Considering that teachers account for about 68 percent of the operating expenditures of elementary and secondary schools, it requires no special insight to realize that this method of quality improvement (if, indeed, smaller class size is a quality improvement) has its economic limits, especially since we must continue to improve rewards for excellence in teaching. It is well to bear in mind that current expenditures for elementary and secondary education (the chief item being teachers' salaries) have risen about 51 percent during the past four years. The consumers price index has risen 21 percent during the same period. At an average salary of, say, $10,000, it costs over $1.3 billion to reduce our pupil-teacher ratio by one. Correspondingly, by increasing this ratio by one, we have a $1.3 billion reserve to improve teacher salaries in rational ways, and provide programs not otherwise available.

Thus, in charting our reform design for the years ahead, we must turn from measures designed for simple accommodation of the World War II baby boom —— I am, in fact, addressing some of the results of that boom —— and devise a radical reform of the
educational methods themselves, including the way in which we deploy our teaching talent. Our purpose is not only to improve the excellence of our product, but to find the secrets of greater productivity, too.

Education in this country is in deep financial trouble because it has all the drawbacks of a cottage industry --- tiny firms, minimal technical progress, low cost-ratio productivity, little specialization of labor, no consumer choice, and no overall measure of net output.

Lest I be misunderstood, I would not propose a system of change to address these problem areas by converting education into a computerized assembly-line process. Education is and must remain a very human experience. But modernization of certain areas is long overdue and the stockholders are demonstrating their unhappiness: budgets, bond issues, and referenda for increased school taxes are being rejected at an unprecedented rate. Less than half of the bond issues offered to the voters during fiscal 1972 were approved. Ten years ago 70 percent success was normal.

It is simply not realistic today to talk about negotiating for pupil-teacher ratios of 20-1 or 15-1. We cannot afford it and, even if we could, there is much evidence that a flexible class grouping --- large as well as small --- makes for the most effective education. Perhaps a ratio of 35 pupils to a teacher, or even 45 (with appropriate paraprofessional support), can be better education than we have now if those teachers are used with maximum efficiency, and receive salaries commensurate with their larger responsibilities. And if we concede that flexible staffing and grouping are necessary to meet certain situations, then
perhaps we can agree that the teaching profession itself requires greater flexibility, particularly in the opportunities for specialization and advancement, and in the manner in which excellence is rewarded.

We must now be concerned with the variety of educational personnel, including categories of teachers, paraprofessionals, and administrators. We must certainly find ways to free teachers from the confines of the pupil day, and the eternal class periods of nine to three. And we should recognize in all our planning the simple but usually ignored fact that all teachers are not equal --- in ability, in ambition, in the value they bring to the community, or in the hours per day that they choose to devote to their profession. This scale of difference is denied in particular by the single-salary schedule with its lock-step advancement. Breaking this antique pattern will enable teachers to redefine their traditional role into a hierarchy of skills with each level of experience and competence assigned a separate salary range. Differentiated staffing would greatly broaden the very small span for advancement now existing. A teacher spends years perfecting his art but has little to show for it if he chooses to continue as a teacher rather than move into some area of administration. I recall a time about 20 years ago when in working with a faculty in considering a new salary schedule, a shock wave occurred when I insisted that some teachers should be able, on the schedule, to earn more money than some principals. It happened in that community, and the arrangement prevails to this day. But it is uncommon.
Differentiated staffing is highly experimental at the moment, of course; it's not clear, for example, whether it will eventually lower operating costs, as its proponents maintain, or prove to be more expensive than the single-salary schedule. We need to answer a whole range of questions having to do with teacher involvement with parents, students, and other staff members in decisionmaking and management concerns.

We need to know who would be responsible for training personnel to participate in differentiated staffing programs, whether articulation of preservice and continuing education could be established, what training would be necessary for differentiated roles, and how much could be learned about instruction in a setting other than a school or college.

There are objections to differentiated staffing, of course: that it removes salary determination from the hands of the teachers themselves, that it threatens job security, that it introduces an unseemly competitiveness into the profession. I do not dismiss these arguments as baseless. But it seems to me that the potential good that can come to education as a result of the open-minded experimentation that differentiated staffing embodies far outweighs its apparent flaws. If there are any historic champions of the philosophy of individual differences, certainly it is the teacher. We must build upon our differences rather than level them.

I am particularly impressed and optimistic about the use of paraprofessionals. Giving each teacher a small staff to carry out supporting activities seems to me the most direct and promising way of getting more effectiveness out of each professional. And
I hold firmly that once we get over the emotion-filled terms of "productivity" and "efficiency," teachers do want very much to be effective. The present method of operation often appears intolerable: what individual teacher can do his job really well if he's expected to be alert to his professional literature and the developments in his academic field, keep up with the newest teaching techniques, conduct a home-room, read and evaluate student work, monitor lunchrooms, collect money, sell tickets, work on committees, chaperon school social activities, and on and on. Many competent and potentially outstanding teachers are becoming bogged down and discouraged because they cannot find the time or energy to be educators rather than technicians.

Many departures in teacher education are being carefully examined and developed here at Rhode Island College which is, of course, the leading producer of education personnel in the State and one of the foremost experimenters and developers of new teaching techniques and methods. RIC houses some of the liveliest components of the State Teacher Center which is funded cooperatively by the Federal Government, the State of Rhode Island, and participating institutions. This has been a major effort under the Education Profession Development Act to give Rhode Island, among four sites across the Nation, the opportunity to put together a state-wide collaborative program with very few Federal guidelines—more and more, I might add, this will be the Washington style.

Apart from the fact that the Teacher Center was designed to train teachers through the cooperation of all levels of education, the Office of Education made no specific demands. And this freedom
engendered a wonderfully creative response: it is not too strong to say that Rhode Island has achieved through the Teacher Center activities a leadership position in the important performance-based education movement, surely a vivid display of individual differences among us.

I would pay your institution one other compliment before I close, and that is to recognize, with a good deal of personal satisfaction, the College's vigorous program of career education training. I know that the concept plays a major role in your alternate Learning Center and that the College is also providing inservice training in career education for teachers from throughout the State. I have pressed very hard in Washington to focus program funds, and what is more important, the leadership of the Federal Government, on career education --- attempting to create in the minds of educators throughout the Nation a climate of acceptance and belief. For we know that career education, as indeed any innovation, will succeed only to the degree that it is accepted on the firing line, in the classroom, and built into the educational system itself by those most directly responsible, the teachers. Rhode Island may be the smallest State in the Union but it is providing a very large example to the rest of the Nation of an aggressive recognition of the need for reform, for change, for the new techniques and methods that will help the schools of the State and the Nation to serve children better.

I want to congratulate all of you. You have had the courage and the foresight and the grit to handle a tough schedule. Many of you, who deserve special recognition, have accomplished your
graduate studies while serving full-time in your school duties. Of such stuff is leadership made --- and I know that many who will serve as the leaders of education here in Rhode Island and the country are seated here this evening.

Lawrence Cremin, the educational historian, has said that this Nation must prepare "men and women who understand not only the substance of what they are teaching but also the theories behind the particular strategies they employ to convey that substance. A society committed to the continuing intellectual, esthetic, and moral growth of all its members can ill afford less on the part of those who undertake to teach."

While it is my privilege to be with you for a little while, as a voice from Washington asking for change in our system, you know and I know that Washington voices come and go, and that change in our profession will not happen because Washington proposes it, or even commands it by law. Change in our profession will come when you who are privileged to serve the children directly, as teachers and administrators in the schools, decide yourselves to change. You seem to be going about the task with all the vigor and intelligence and personal belief that Mr. Cremin, or myself, or anyone else who cares deeply about education could desire.

Thank you for letting me be with you.