f education was a self-serving profession or business, then there would be no anxious looks on our faces. Teachers and administrators are enjoying what is known in the economy as a seller's market. The customers outnumber us and are growing faster than our productive capacity. Our prices are advancing, our plant is being used to capacity, unit production costs are going down, and there is no end to the boom in sight. More and more members of our profession are becoming fuller participants than ever before in what is known as the affluent society. By most any tests which a business enterprise applies to itself we should be patting ourselves on the back and going home every evening from work whistling because "business is good."

But we are not necessarily whistling a happy tune at the close of each day, particularly if we are thoughtful and responsible and serious about our tasks, for two basic reasons and a third derivative reason. The two basic reasons which distinguish us from the business enterprise are, first, that the profit motive, laudable as it is in the private enterprise system, is not the reason an educational institution exists. As our great friend John Gardner so clearly phrased it, "Education is the servant of all our purposes." How could you say it better? We exist to serve the purposes of our society. Secondly, we constitute a profession. A profession is a calling to which one devotes himself. We are devoted to the great profession of teaching, one which serves all the other purposes of the individual and the society. And thirdly, the more devoted we are to our calling the more clearly we see the profoundly important character of what we profess to be doing and the less satisfied we can be at any moment in history to believe all is well, especially now.

First, let's have a look at the challenge. The most obvious fact with which we are confronted is the growth of population. But population has nearly always been growing. What makes it so important to us is the steepness of its growth, to some extent the suddenness of it; but even more importantly, the kind of an economy in which it is occurring. Population statistics for 1965 present startling challenges to our educational system. Forty-six percent more people will reach the age of eighteen next year than reached the age of eighteen in the year 1960. Furthermore, a significantly higher percentage of them will seek formal education and training after high school than ever before and a significantly higher percentage will knock at the doors of our colleges and universities. These numbers of young people studying from the freshman year through the doctorate and beyond require expansion of the educational enterprise. Even if we were to attempt to accommodate
college teachers and administrators to give his answers to the question, MEET THE CHALLENGE OF CHANGE?

By DR. JOHN T. CALDWELL

them in precisely the same fashion as now, in the same types of academic organization, curricular patterns, requirements, methods, etc., the sheer expansion pressing against resources which are not expanding as fast as need would force changes in accommodations in our systems.

Sociologically we can record with assurance in this country as well as all over the world that more people will be living in cities and metropolitan areas—far more. We must not minimize the fact that cities will be the habitation for the human race and that the urban environment is a completely man-made one of brick and concrete and glass and steel and plastics and asphalt and copper wire. We have not yet grasped the fact in this century of urbanization that man potentially can make a magnificent and exciting environment aesthetically satisfying and stimulating and altogether a favorite place in which to generate and develop the human qualities of man. Sociologically we can anticipate a telescoping of the extremes to such a degree that some leisure time, that participation in the arts, that the minimum necessities of good food, decent housing, medical care, education, etc., are available to nearly everybody; therefore, that income sufficient for discretionary use will seek fresh outlets.

Economically the trend toward larger production units and organizations is probably inevitable. The larger organizations will be competing, of course, with larger organizations. The successful ones will be the more vital ones, the ones who really care about their vitality in the future, and as Frederick Kappel describes it, will spend more and more time in discovering and expanding the creativity of individual man and woman at every level in the firm. The science of organization and administration and management, the techniques of decision-making and indeed even the science of decision-making will call for a new breed in top and middle management. Business enterprise will regard it as a prime obligation that its members participate effectively and constructively in public affairs at every level of government. The number of people in the professions and service occupations will grow. Sociologically and economically let us note, too, that this big world of ours has become so closely interrelated that we can no longer ignore the hazards of poverty, ignorance and controversy anywhere on the planet.

Now to the question, how can higher education meet this challenge? We must meet it at three levels. The first level I call the over-all state and national planning level, No. 2 the institutional level, and No. 3 in the classroom and laboratory.

"The thinking powers must be tightened, his communicating powers improved, his analytical powers strengthened, his creative instincts nurtured, his aesthetic appreciations refined, his sensitivity to all human beings must be raised."
James Bryant Conant has devoted his latest significant book, *Shaping Educational Policy*, to the problem of organization for policy-making in the educational establishment. He does not believe that our present method of shaping educational policy in the U.S. is sound. Dr. Conant suggests the formation of an interstate compact for the creation of "an interstate commission for planning a nation-wide educational policy." He proposes that if all the states could not be involved, then fifteen to twenty of the most populous states could do so. This commission would be a planning body, not an administrative body, but based upon facts it would develop consensus which would influence the Congress and the states in a fashion which is not now possible or even seriously attempted. I must say that I find the proposal attractive.

But lest we be guilty of choosing this one suggestion as "the" solution to pursue, let us not hesitate to undertake immediately at the state level what needs to be done. At this point I wish to commend Oklahoma. I have on many occasions praised the statutory arrangements which have provided Oklahoma for more than thirty years with an authoritative planning body for its public-supported higher education. Every state, sooner or later, will have to go at least as far as Oklahoma has gone in this regard.

I have referred to Frederick Kappel’s little book, *Vitality in the Business Enterprise*. Vitality in the business enterprise, he says, derives from doing those things today which insure its vitality in the years ahead, and it is not found in money, in material goods of any kind or in anything other than the thinking of the people in the organization. But he finds that universities are infected with two grave defects which are closely related, which are not trivial, and which could be deadly. They are "certain rigidities of internal structure and the pervasive power of vested interest." The defects show up in "the extraordinary rigidity of the departmental structure and the deep-seated aversion of many faculty members to extensive innovation within the institution." You and I both know that proposals for major revamping of curriculum, departmental organization, faculty evaluation, grading systems and what-not encounter the powerful opposition at least of inertia if not the protection of vested interest. I wish I were more hopeful that administration and faculties could team up more effectively to introduce the innovations our times demand. I see no chance of higher education meeting the challenge of change which the new technology has thrust upon our society unless faculties take the time and exert the energy to improve significantly the organizations and processes of higher education both at the undergraduate and graduate levels.

You ask what changes I have in mind? I have several.

(1) The proper education of the liberal arts major in the basic concepts and implications of science and technology in our society without necessarily trying to make scientists out of the generalists.

The author is chancellor of North Carolina State University, Raleigh. The article has been adapted from an address made before the Higher Education Fall Conference of the OEA’s Department of College Teachers.
(2) Recognition of the interdisciplinary character of much of the new knowledge in such a fashion that the student himself is not left to work out the facts of interrelatedness by piecing together specialized disciplines if at all.

(3) Recognition that the fundamentals and principles of man's knowledge and how to apply these to problems solving and discriminating judgments is far more important than the requirement of regurgitation of facts. It is too rapidly becoming obsolete.

(4) That we find ways in the academic world to identify, respect and reward a wider range of abilities than those which can be narrowly identified and judged by intellectual testing.

(5) That the teachers themselves undertake seriously to utilize the new technology and new devices available to them and the students to make the learning process more effective and the use of the teacher most appropriate and effective.

(6) That we discover ways to reward and give credit to learning which is not necessarily taking place within the confines of our own controlled classrooms and laboratories.

(7) In another vein, that each institution set its ambition to be as good as it can of its own kind without looking for status and prestige in becoming another kind of school.

(8) That the universities, of course, must be parts of the comprehensive whole and cooperate fully in making their partnership real.

(9) Continuing adult education.

Finally, what can the teacher do as an individual in this process? The press and the public are beginning to wonder how interested the colleges are in the boys and girls who come to them for learning. How well is the teaching done? How much encouragement is the student given? I myself feel that we must put more responsibility than we have in the past on the student himself to do his learning and growing. This may mean spending actually less time in the classroom. But I deeply feel that we must be more diligent as teachers and more vigilant in ferreting out the “little foxes that spoil the vines,” that is, guarding against the temptations of our new environment which would lead us to take a lesser view of classroom teaching of the freshman student, of his success, of his need for friendship, of his hunger for adult companionship and guidance and of his dependence on us to help him find himself and grow to his maximum being.

Nor will it be sufficient, friends, for us to think of this new student in this big complex world in the same way now as he was twenty years ago, or thirty. He needs to be awakened in so many more ways, to understand so many more things, to be able to think at once more broadly and more precisely. The thinking process must be tightened up, his communicating powers must be improved, his analytical powers must be strengthened, his creative instincts must be nurtured, his aesthetic appreciations must be refined, his sensitivity to all human beings must be raised. There is no better way to accomplish these things than in the teacher-student relationship, in challenging but realistic assignments, in classroom and out. In other words, friends, you and I must be concerned with the quality of thinking, not merely quality points earned or the number of facts acquired as the goal of higher education.