

CHANGING DIRECTIONS IN AMERICAN EDUCATION

*Exclusive report and analysis presented annually
with the Committee for Economic Development*

Behind the Business Issue: For the past nine years, *SR* and the Committee for Economic Development have co-operated to produce an annual issue on aspects of the U.S. or international economy. This year's subject—"Changing Directions in American Education"—grows out of a deep and continuing commitment by both *SR* and the CED to enrich and expand education as a positive force for human betterment.

CED, which is composed of 200 leading businessmen and educators, was established to develop, through a business-academic partnership, policy statements and other research products that can serve as guides to public and business policy. By uniting scholarship with business judgment and experience, it hopes to contribute to the analysis and solution of pressing economic problems that constantly arise in a dynamic democratic society. In 1959, as one of a series of policy statements, CED's Research and Policy Committee issued the study "Paying for Better Public Schools," and in 1965 it published a related study, "Raising Low Incomes Through Improved Education." Presently, CED's Subcommittee on Efficiency and Innovation in Education, as part of a program of further research in this broad field, is reviewing the entire learning-instruction process through the twelfth

grade and trying to ascertain ways in which cost-benefit analysis and new teaching techniques can help improve both quality and efficiency of public education.

The material in this special section of *SR* is a direct outgrowth of CED's work in this field. It was addressed to business leaders at an off-the-record fall meeting of CED trustees. Presiding at the symposium was John L. Burns, chairman of the Cities Service Company, who is a CED trustee and chairman of the Subcommittee on Efficiency and Innovation in Education. An adaptation of his remarks introduces this special section. Other contributors are: Sterling M. McMurrin, former U.S. Commissioner of Education, now E. E. Erickson distinguished professor of philosophy and dean of the graduate school of the University of Utah; Patrick Suppes, director of the Institute for Mathematical Studies in the Social Sciences, Stanford University; William G. Harley, president of the National Association of Educational Broadcasters; C. H. Springer, manager of educational systems implementation, the General Learning Corporation; and Roald F. Campbell, dean of the graduate school of education, the University of Chicago.

—FRAZAR B. WILDE, Chairman,
Committee for Economic Development.

OUR ERA OF OPPORTUNITY

By JOHN L. BURNS

FIVE CENTURIES AGO, when the first book was printed with movable type, the groundwork was laid for the greatest forward surge in education that the world has known up to now. Today we are seeing the beginning of another forward surge that may prove even greater. The electronic age is changing our traditional notions of education. The role of the teacher, the role of the classroom, the nature of the learning process itself must be re-examined in the light of new technology.

There are interesting parallels between today's incipient revolution in education and the revolution of five centuries ago. The printed book was a form of automation, a kind of teaching machine. No longer did scholars need to cluster at the feet of their master as he read to them from a precious, laboriously produced manuscript. Each could have his own copy of the text to study in private—and no doubt it seemed that the teacher had been permanently replaced. Far from being replaced, the teacher increased in importance. His function changed. Relieved of the chore of read-

ing to his students, he had time to counsel and to explain and expound, to interpret and correlate the mass of information and knowledge that books made available to all. I believe that once again the role of the teacher can be changed, and changed for the better.

It seems to me that the best start toward a solution of our educational problems would be a thorough appraisal of the educational field for the purpose of developing a broad blueprint for our nation's school systems. The primary objective should be to bring about a significant improvement in the quality of education. The corollary goals should be to reach more people more effectively and to maintain or, hopefully, to lower the per pupil costs.

The first step toward improving quality would be to free the classroom teacher from much of his daily routine in order to give him time to help individual students. Another would be to provide teachers with a large repertory of the highest-quality presentation of ideas, and specific curricular material. A third positive step would be the development of classroom presentations of a highly individualized nature in each

course. Each of these steps could be realized with the widespread use of electronic teaching aids that could take over much of the routine involved in teaching and also provide better course materials. Classroom instructors then could give more individual attention to students.

The teacher could take on a new role and achieve a new importance. Instead of giving the same lecture to five classes a day, for example, a teacher would be able to devote days or even weeks to the preparation of one outstanding presentation to be filmed or taped and repeated and updated as often as needed. With more freedom for discussion, the classroom teacher would be able to meet with small groups, counsel them, and stimulate them to discover knowledge for themselves rather than to be merely pumped full of facts. Again the teacher would, in effect, be able to spend time "sitting on a log" with his pupils.

Another important method for improving the quality of education would be the development of selective instruction based on individual ability, to replace our presently used batch process, particularly in the lower grades. There are as many school dropouts due to lack of stimulation as there are due to students' continually finding themselves over their heads in their studies. Some of our better schools already operate on a non-graded system—with a student in a third grade home room, for example, able to attend a fifth grade reading class, a fourth grade writing class, and a second grade arithmetic class. The number of schools offering such selective instruction needs to be expanded.

Finally, teachers must be better trained and their salaries must be comparable with those in industry and commerce, so that we may attract more of the better teachers at all levels and stem the outflow of top teachers.

Improving the quality of education may stimulate progress toward our two secondary objectives—extending the base to reach more people while lowering or holding the line on unit costs. With more time provided by electronic teaching aids, teachers will be able to give attention to their problem students. Personal counseling will help more students over rough periods and prevent them from dropping out. Teachers will also have the opportunity to develop programs and courses that will be attractive to many students who lose interest in the limited programs offered in many

CED on Education . . .

CED HAS RECOMMENDED four kinds of action to overcome the main financial obstacles to the improvement of the public schools:

1) *New attack on redistricting—by state laws.* Immediate reorganization of small school systems into effective units of local government is required in most states, including almost all of the most populous states. . . . Most small districts are in rural areas. However, [approximately] 5,000 systems with less than 1,200 pupils, including [approximately] 2,000 with less than fifty pupils, [are] inside the 174 large metropolitan areas. . . .

2) *State assistance to local school districts.* In most states the state government should take over from the local districts a larger share of the financial burden of schools. . . . The inherent limitations of the property tax, as well as other limitations imposed by state law, are serious obstacles to the flow of funds into education. . . . State funds should be distributed to local school districts through a "foundation" program that insures each district within the state the financial ability to support its schools. . . .

3) *Federal support for education in the poorer states.* . . . While we regret the necessity for any further expansion of the federal role, we do find federal supplementation of state and local funds necessary for the improvement of schools in the poorer states. . . .

4) *Citizen effort to improve the schools.* The numerous citizens throughout the country who appreciate the need for improved education must be better organized to bring this need to bear at every level of government. . . .

—*Paying for Better Public Schools,*

A Statement on National Policy by the

Research and Policy Committee of the CED.