

COMMENT ON THE EDUCATIONAL SYSTEM IN THE U.S.

Excerpt from the article "Children and the Elderly in the U.S." by Samuel H. Preston, *Scientific American*, 251:44-49, 1984.

Editor's Note: *Preston's paper deals with the striking demographic changes occurring in the U.S., especially with the marked increase in our elderly population versus the young. These four paragraphs from this article deal specifically with serious problems in the educational system as a consequence of shifts in political and economic power between two groups. Our industry requires well educated, trained professionals. The implications of these paragraphs may ultimately reflect, in the years ahead, on the industry's competitiveness and vigor. The industry needs to assess the implications and to plan accordingly. Else, they may be supporting something that looks good but has no substance.*

"For the young, the most important service is education. The most significant trend in education has been the decline in enrollment. Between the early 1970's and the early 1980's public elementary school enrollment fell 11 percent and secondary school enrollment fell 18 percent. I think a persuasive argument can be made that the decrease in enrollment is one reason for the apparent decline in the quality of U.S. schools. On a casual examination, the evidence seems to be to the contrary. Between the early 1970's and the early 1980's, the total expenditure per pupil in constant dollars increased by 22.5 percent. The student-teacher ratio fell from 22 to 18. The average amount of professional experience of teachers rose, as did the fraction of teachers who had master's degrees. The problem is that **none of these variables has been shown to be related to students' academic performance** (Bold editor's emphasis). Eric A. Hanushek of the University of Rochester recently reviewed 130 studies of factors affecting achievement in school. Hanushek concludes that the only reasonably consistent finding in the studies is that **students' academic achievement increases with the intelligence of the teacher.**

"Since the quality of teachers is such an important variable and since better salaries would be expected to attract better teachers, the work of Hanushek and others focuses attention on working conditions for teachers. Hence it is surprising to note that teachers have not shared in the increased expenditures on schools. From 1973 through 1983 teachers' real incomes declined by 12.2 percent. Moreover, reduction in teachers' incomes are correlated with decreases in school enrollment. I used state enrollment and salary data to compare changes in teachers' salaries with changes in enrollment over the period from 1972 through 1982. The correlation suggests that in the 1970's for each

decline of 10 percent in school enrollment teachers' salaries decreased about 1.2 percent.

"The outcome of a reduction in average salary is predictable: the brightest workers, who can readily get other jobs, leave a field or do not enter it in the first place. This is what has happened in teaching. The decline in S.A.T. scores among all high school students is quite sharp but the decline in S.A.T. scores among those intending to major in education has been even more acute. In 1973, future education majors scored 59 points lower than the national average on the combined S.A.T.; by 1982 they scored 82 points lower. The negative selection of those going into teaching has been aggravated by negative selection among those already in the field. The 1972 National Longitudinal Survey of high school seniors shows that the mean S.A.T. score for those who enter the field of teaching and then leave it is 42 points higher than the score of those who enter and stay. **Those who remain permanently in the profession have a combined S.A.T. score 118 points lower than the score of those who have never taught.**

"The most plausible interpretation of these very unsettling data is that the demand for teachers was reduced by the decrease in the number of school-age children. The reduction in demand led to a lower average wage for teachers. Therefore a disproportionate number of the brightest teachers (who get the best results) left the field and many potentially good teachers avoided the field altogether. The result is clearly incompatible with the hypothesis that school districts would use the funds liberated by falling enrollments to raise salaries and find better teachers. Quite the opposite has already taken place."

Editor's Note: *These same observations appear applicable to your University research and training institutions.*