

AMERICAN ASSOCIATION
FOR THE
ADVANCEMENT OF SCIENCE

Board of Directors

LAURENCE H. SNYDER, *President*
WALLACE R. BRODE, *President Elect*
PAUL B. SEARS, *Retiring President*
PAUL M. GROSS
GEORGE R. HARRISON
PAUL E. KLOPSTEG
CHAUNCEY D. LEAKE
MARGARET MEAD
THOMAS PARK
WILLIAM W. RUBEY
ALAN T. WATERMAN
PAUL A. SCHERER, *Treasurer*
DAEL WOLFFLE, *Executive Officer*

DAEL WOLFFLE, *Executive Officer*
GRAHAM DUSHANE, *Editor*

CHARLOTTE V. MEETING, *Associate Editor*
JOSEPH TURNER, *Assistant Editor*

Editorial Board

WALLACE R. BRODE EDWIN M. LERNER
BENTLEY GLASS WILLIAM L. STRAUS, JR.
KARL LARK-HOROVITZ EDWARD L. TATUM

Editorial Staff

PATRICIA L. CARSON, MARY L. CRABILL, HARRY
DAVID, SARAH S. DEES, NANCY S. HAMILTON,
OLIVER W. HEATWOLE, YUKIE KOZAI, ELLEN E.
MURPHY, ROBERT V. ORMES, BETHSABE PEDERSEN,
MADELINE SCHNEIDER, JANE STINE, JACQUELYN
VOLLMER

EARL J. SCHERAGO, *Advertising Representative*

SCIENCE, founded in 1880, is published each Friday by the American Association for the Advancement of Science at Business Press, Lancaster, Pa. Entered at the Lancaster, Pa., Post Office as second class matter under the Act of 3 March 1879.

SCIENCE is indexed in the *Reader's Guide to Periodical Literature* and in the *Industrial Arts Index*.

Editorial and personnel-placement correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors. For detailed suggestions on the preparation of manuscripts, book reviews, and illustrations, see *Science* 125, 16 (4 Jan. 1957).

Display-advertising correspondence should be addressed to SCIENCE, Room 740, 11 West 42 St., New York 36, N.Y.

Change of address notification should be sent to 1515 Massachusetts Ave., NW, Washington 5, D.C., 4 weeks in advance. If possible, furnish an address stencil label from a recent issue. Be sure to give both old and new addresses, including zone numbers, if any.

Annual subscriptions: \$7.50; foreign postage, \$1; Canadian postage, 50¢. Single copies, 25¢. Special rates to members of the AAAS. Cable address: Advancesci, Washington.

Rates effective 1 January 1958: \$8.50; foreign postage, \$1.50; Canadian postage, 75¢. Single copies, 25¢.



Costs of Higher Education

During the last decade the cost of a college education has increased sharply. A recent survey by the *New York Times* of 35 representative public and private colleges and universities showed that tuition increases ranged from 50 to more than 100 percent in the period from 1946-47 to 1956-57.

Although spokesmen for some of the institutions in the survey thought that scholarship aid would keep pace with the rise in costs, spokesmen for others were not so hopeful. An important and socially undesirable consequence of the tuition increases, insofar as they are not met by additional scholarship aid, will be to bar some well-qualified students from higher education on purely economic grounds. This is, of course, not new. Some promising students have always been prevented from going to college by lack of money. But, if it is not new, it is intensified, and further rapid increases may deter a proportionally larger number of students.

How great is the loss of potential college students? Charles C. Cole, Jr., assistant dean of Columbia College, attempted to answer this question last autumn in a study carried out for the College Entrance Examination Board under a grant from the National Science Foundation. Cole estimated that some 200,000 high-school students who were in the upper 30 percent of their senior classes last autumn failed to go on to college; some 700,000, many of whom were not as well qualified, did go. The loss is substantial, but it can be attributed only in part to lack of funds. Of the 200,000 Cole showed that about 50,000 had considerable potential scientific ability, and he concluded that between 8000 and 15,000 male high-school students of this group "could be retrieved if they could be found and provided with sufficient financial aid to enable them to go to college."

That the states should make some contribution to education has long been recognized, as is shown by tax exemptions granted to private colleges and universities and by state support of public institutions. The Federal Government has a long record of support of education from the Morrill Act in 1862, which made possible the land-grant colleges, to recent grants for research and training.

Thus, partial support of the institutions of higher education is a well-established function of both state and federal government. The direct support of students is more recent and more fragmentary. A few states, California and New York among them, have extensive scholarship programs. The Federal Government has, aside from financial aid during the depression and scholarships to veterans of World War II and the Korean War, held aloof. The numerous scholarship bills introduced at each recent session of Congress have died in committee.

It is a hopeful sign that private and industrial donations, both for operating expenses and scholarships, are increasing and that a National Merit Scholarship Program has been launched with support from the Fund for the Advancement of Education and from industrial donors. The proposal by Paul E. Klopsteg of a tax adjustment that would greatly encourage private and industrial gifts to education is attracting widespread interest [*Science* 124, 965 (1956)]. In addition, for those who have some financial resources, the pay-as-you-go plan for tuition and board and room is helpful. An increasing number of colleges and universities are entering contracts with a New York corporation, Tuition Plan, Inc. Tuition Plan pays the institutional fees in a lump sum in September and January and bills parents monthly. The only cost is a 4-percent carrying charge to the parents. This plan of installment payments for education has caught on rapidly: in 1955, contracts totaled \$8.7 million; in 1956, \$12 million; in 1957, \$30 million; in 1958, an estimated \$100 million.

It is too early to tell what final balance between public and private support will be worked out, but the vigorous discussion and numerous plans give grounds for the hope that some way will be found to see to it that no qualified person fails to attend college for financial reasons.—G. DuS.