

The Future Scientists of America Foundation

By John H. Woodburn

ESTABLISHED three years ago by the National Science Teachers Association, the Foundation has accumulated experience in trying to do what industry, professional societies, and science teachers suggest might improve science teaching. In addition, the strengths and weaknesses in the Foundation's design are becoming clarified. Consider the program first.

By providing fellowships for summer conferences, science teachers become available to serve as members of a research team. Appropriate topics take the teachers into the laboratories of practicing scientists where they see the latest research techniques being used on projects of current interest. These interviews suggest ways to improve science teaching in general as well as giving data bearing on the specific problem assigned to the research team. The 1954 conference produced more laboratory exercises that are tuned to new developments in science. The 1955 goal will be mathematics exercises which help students master the mathematics skills needed to continue successfully in science. Topics that have been suggested for future action are (1) demonstrations and demonstration techniques that are appropriate for today's students, (2) gaining maximum value from student time invested in science projects, and (3) increasing emphasis on new or especially significant science topics, for example, the physical laws of motion as they are involved in highway accidents.

Science teacher recruitment is centered in the booklet—"Careers in Science Teaching." How one becomes a teacher, the work involved, and special opportunities available to teachers are portrayed with a reasonable degree of reality.

The teachers in the 1954 Summer Conference asked for chances to work for university research scientists on somewhat the same basis as industries let them work for industrial scientists. Twenty-five universities provided Science Teacher Summer Research Assistantships for a pilot run of the program in 1955. These universities are:

The Clemson Agricultural College	Oregon State College
Cornell University	University of Pittsburgh
The Creighton University	The Rice Institute
University of Florida	The University of Rochester
University of Illinois	Southern Illinois University
Indiana University	Stevens Institute of Technology
Lehigh University	Syracuse University
Massachusetts Institute of Technology	Tennessee Agricultural and Industrial State University
University of Miami	Agricultural and Mechanical College of Texas
Michigan State College	Tufts College
Montana State College	The State College of Washington
New York University	North Carolina State College
Oklahoma Agricultural and Mechanical College	

Employers' and employees' experiences with science-related industrial summer jobs for teachers have been partially summarized. In general, the program has good public relations effects, requires no special machinery to operate, improves the teachers' counseling ability, broadens their human relations, and provides much

practical knowledge. Potential employers and employees who fail to get together are sources of dissatisfaction.

Through a program of science teacher recognition awards, teachers are encouraged to report new ideas. Entries feature (1) more effective teaching aids; (2) ways to recognize and stimulate students who show special abilities in science; (3) ways to exploit local facilities, and (4) ways to maintain, revive, or restore laboratory teaching in today's schools.

Industrially sponsored career counseling materials and services are announced in annual editions of *Encouraging Future Scientists: Materials and Services Available*.

Students who report good projects receive recognition through a program of science achievement awards for students. To help teachers direct their students in project work, the Foundation publishes abstracts of selected projects and has in preparation a booklet on techniques of project work. A science student chart-making contest provides awards for this type of activity.

The Foundation works with other groups who are interested in keeping track of (1) student enrollment trends, (2) tendencies of young people to go into teaching, (3) training and certification requirements for teachers, (4) graduate programs open to teachers, and (5) high school courses of study. Copies are available of a four-page summary of facts bearing on high school science student enrollment and teacher supply trends and also a one-page list of suggestions for interesting more capable young people in scientific and engineering careers.

The Foundation draws its strength from being rooted in the National Science Teachers Association. The membership occupies a strategic position in keeping adequate numbers of young people flowing into colleges, thence into graduate schools, and ultimately into scientific, engineering, and technical positions. All professional and technical societies are invited to advise the Foundation regarding the appropriateness and effectiveness of its program.

Drawing its financial support from industry and scientific and technical societies provides advice from these sources and serves to keep the program geared to the changing needs of our economy. At the same time, this introduces a potential weakness. Industry can invest only so much money in education. Many colleges, universities, and professional associations need industrial money almost as badly as they need students or members. Unless it can be shown that the Foundation's program actually provides a larger number of capable, college-bound young people, it will lose its right to compete for industrial support.

John H. Woodburn is assistant executive secretary of the National Science Teachers Association, which is a department of the National Education Association, 1201 Sixteenth St., N. W., Washington 6, D. C.