

Social relevance in the sciences

**Scientists in many fields
are grappling with demands
for racial justice**

by Lawrence Massett

Three summers ago, the newly chosen site of the National Accelerator Laboratory in Batavia, Ill., was the scene of a dramatic tent-in led by Dr. Martin Luther King Jr. The demonstrators wanted the entire installation, scheduled to become the world's largest high-energy physics laboratory, removed to some other location because of refusal by the Illinois State Legislature to pass an open housing law.

The physicists building the 200/400-billion-electron-volt accelerator responded, not by moving their laboratory, but by committing their influence to equal-opportunity programs aimed at recruiting and employing members of minority groups.

The National Accelerator Laboratory has developed a list of black industries that are invited to apply for business contracts. Other contractors are required to submit, along with their bids, plans to establish minority-group training and recruitment programs. In addition the laboratory has begun a number of projects to seek out and train minority-group personnel for both nonprofessional and technical jobs.

This pattern of challenge and response is becoming increasingly familiar to scientists in all fields. The demands for social relevance heard so loudly at the last meeting of the American Association for the Advancement of Science (SN: 1/3, p. 5) are becoming a standard feature of the meetings of scientific societies. As individuals, as members of

professional associations and as workers in industry, government and business, scientists are beginning to look for ways in which they can lend a hand to social progress.

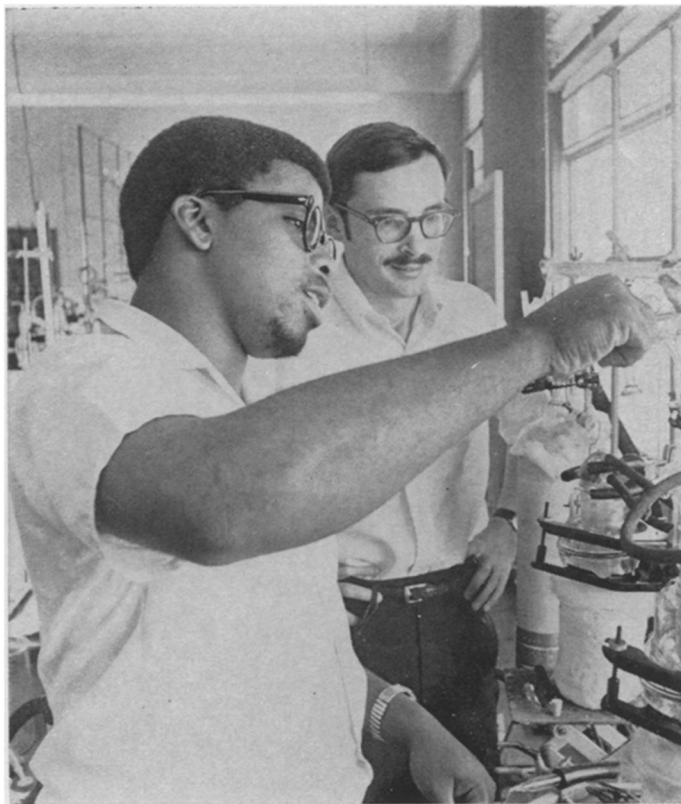
The experience of the National Accelerator Laboratory is in a way unusual, because scientists there have had the advantage of a mammoth and well-endowed institution to back up their concern for racial justice. "It is in part the size of our project," admits Dr. Edwin L. Goldwasser, deputy director of the laboratory, "which has made it possible for us to achieve some success in these early programs."

Other scientists, lacking such a power base, are channeling their activities in several different ways. The American Chemical Society two years ago began a pioneer attempt in the use of scientific societies as a means of organizing social action projects. In the beginning Dr. Milton Harris, chairman of the ACS board of directors, personally funded the society's programs, known as Project Seed. Project Seed now includes a wide variety of programs, aimed at providing summer employment, in university laboratories and in the chemical industry, for disadvantaged high school and college students. The total budget for Project Seed comes to over \$1 million, and the American Chemical Society is soliciting support funds from its 155,000 members.

A number of scientific societies are following the chemists' lead. The

American Psychological Association, confronted by well-organized protests from black psychologists and students at the last annual convention (SN: 9/6, p. 177), is now asking members for money to launch its own programs. Some of these, like the ACS programs, will be directed at bringing black students into the field; others will provide grant funds for black, rather than white, psychologists to do research in black communities. The National Society of Professional Engineers is helping its local chapters set up community-involvement projects throughout the country. Besides assisting and recruiting students and technicians from deprived backgrounds, the engineers are trying to offer systematic advice to their local communities on such related problems as crime, housing and transportation.

A local NSPE chapter in Carson City, Nev., for example, is helping the city work out an air pollution ordinance and devise a cure for an incipient water shortage that the engineers discovered. In Hartford, Conn., society members are building a children's playground designed to illustrate mechanical principles in the form of toys, and to be vandal-proof and weather-proof as well. The Miami, Fla., chapter is organizing a symposium to recommend improvements in the area's zoning procedures. And in Philadelphia the society bought and manned a trailer that travels to ghetto high schools and informs students about the engineering field.



Univ. of Georgia

Dr. K. J. Wynne aids student Davenport in an ACS project.

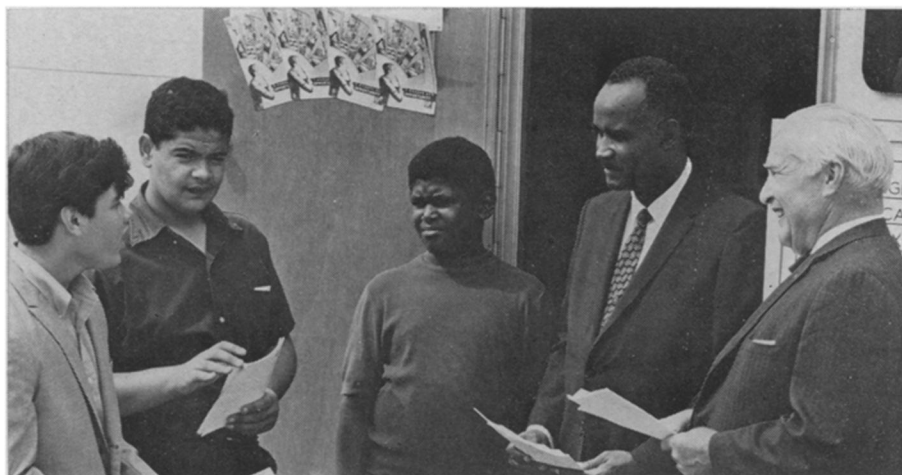
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Many scientific associations, however, lack the structure and staff for coordinating any large-scale response to social problems. Most professional groups in the biological field, for instance are quite small; "They exist," says a spokesman for the American Institute of Biological Sciences "almost exclusively for the purpose of their annual meeting." The few biological societies that do provide educational assistance to minority groups shun publicity for fear, they say, of overloading their resources.

An increasing number of scientists, consequently, are relying on industry, the universities and government as organizations through which they can act. These have an over-all interest in alleviating social disorder that includes but is not limited to the training and recruitment of scientific personnel: Government and the universities are experimenting with new educational techniques for disadvantaged students of all types (SN: 3/14, p. 265), and there are more than 13,000 companies in the United States with programs for educating and training black personnel.

Within the scientific realm, however, the medical field is receiving perhaps the most attention at the moment as an appropriate area for expanded equal-opportunity programs. Only two percent of American physicians are black, and more than 80 percent of these are graduates of only two schools, Howard University and Meharry Medical College. The situation is well known, and last month the American Medical Association and the National Medical Association jointly announced the formation of a committee to work with medical schools throughout the country at recruiting more black students. A few members of the drug industry, including A. H. Robbins in Richmond and Chas. Pfizer in Brooklyn, have special educational and hiring programs for blacks. Hoffmann-LaRoche in New Jersey has, besides the conventional programs, a policy of offering doctors free medicine for their indigent patients. And the National Institutes of Health has begun advising minority-group colleges on ways to obtain graduate study grants for their students, the institutes also initiated an attempt at recruiting professionals from black colleges.

Second to the area of health care are scientific areas, notably chemistry and engineering, where industry has an economic stake in developing skilled labor. Union Carbide, for instance, provides tutorial and counseling help to ghetto schools. The DuPont Co. offers summer employment to disadvantaged students and actively recruits black graduates for positions as chemists, physicists



NSPE

Engineering in the ghetto: Philadelphia students discuss possible careers.

and engineers. Dow Chemical Co. supplies grants to colleges and universities to help prepare black chemistry students to meet Dow's employment requirements.

The ultimate question, no matter what channels scientists work through in responding to the challenge of equal opportunity, is how effective the response seems to be. The majority of these programs, sparked by the nationwide riots several years back or by more recent demonstrations, are too new for their initiators to judge them.

"The response to our appeal for voluntary contributions has been lukewarm so far," says one official at the American Psychological Association. Yet, he adds, the people working to launch the new programs are satisfied progress is being made: "At least a real dialogue has been started. Blacks and whites are beginning to talk to each other."

In the total picture of scientists' contribution to such social programs, furthermore, the efforts of scientists who do not work through the conventional channels are usually overlooked. A case such as that of Dr. Jack Geiger of Tufts University School of Medicine is not normally reported.

In 1964, Dr. Geiger, then with Harvard University, went South to provide health care for civil-rights marchers and wound up organizing a health-care center in Bolivar County, Miss. The center, which has expanded to include a farm cooperative, provides local health care, trains technicians and provides scholarships for black students to medical schools.

The center is partly funded by profits from the farm co-op, and Dr. Geiger believes it will eventually run itself; meanwhile, he has obtained support funds from the Office of Education, from the Rockefeller Foundation and from Tufts University. An unexpected



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Goldwasser: A national clearinghouse.

side effect of the project is that Tufts University, involved in financing a health care center in Mississippi, decided to do the same in its own community, and has begun a similar health-care center at Columbia Point in Boston.

The general success of all these programs would be a great deal simpler to evaluate should the scientific community adopt Dr. Goldwasser's recent proposal to establish a national clearinghouse through which scientists interested in social action programs could keep in touch with one another, pool their funds, and share contacts and expertise. Whether or not such a national community of scientist-activists finally comes into being, and regardless of how the end results are measured, a growing number of scientists seem committed to the attempt at social equality.

No one expects quick results. "It is easier," Dr. Robert Rathbun Wilson, director of the National Accelerator Laboratory, comments, "to accelerate particles than it appears to be to accelerate societies." □