AAAS Project on Native Americans in Science

The needs of Native Americans for science education and scientific and technical manpower are being explored by the AAAS Office of Opportunities in Science Project on Native Americans in Science in a program initiated by the Office in January 1976. With support from the Educational Foundation of America and the Association, the Project undertook a 10-month effort which involved meetings of Native American scientists and educators; contact with Indian science and educational organizations; planning for educational institution needs assessment in science and mathematics; collecting and disseminating information on Native American science education and manpower development; and 6 weeks of field research, exploring the barriers to careers in science for Indian students.

The findings of this research are summarized in a published report, *The Barriers Obstructing the Entry of Native Americans into the Natural Sciences*. A comprehensive set of recommendations based on research and other activities of the Project has also been prepared and is being distributed to those best equipped to effect policy, implement programs, and remove the barriers. The "Barriers" study elucidates a number of significant areas for the improvement of science and mathematics education for Indians and the recommendations suggest strategies for effecting such improvement.

The study, which involved extensive interviews with American Indian college students, teachers, counselors, and program directors, indicates that poor precollegiate preparation in math and anxiety about abilities to succeed in math constituted a principal factor in choosing a career or college major as well as in general success in school.

The study suggests that

1) the Indian students rarely consulted high school counselors;
2) students had little remedial or advanced work available to them and developed programs of study on their own;
3) students rarely had Indian counselors or teachers; and
4) counselors rarely offered counseling services outside of disciplinary action.

The students who were science majors, particularly those in the allied health fields, had more role models, both Indian and non-Indian, than those not in scientific fields. Both their role models and their inspiration to enter a scientific field usually came with a work-related experience or activity. (For example, the men may have served in the Armed Services Medical Corps; the women in hospitals.) The study further indicates that most of the students, science and nonscience majors, preferred fields of study that were clearly work-related with cooperative or intern programs. They chose applied rather than theoretical or abstract disciplines and study problems, especially those that were of direct or indirect benefit to Indian people. Not surprisingly, it seems that those in special programs for Indians (e.g., biomedical sciences or engineering programs) with Indian counselors and staff support are more likely to graduate than students not in special programs. The research further suggests that serious conflicts between traditional Indian values and cultural factors such as sex role expectations and behavior tended to mitigate against choices of careers in the "hard" sciences.

While the barriers to Native American scientific education and manpower development are serious and extensive, a number of efforts to address the problems exist and are working. The AAAS Project

Graduate Students' Center Planned for Denver

Citing a need for wider student representation at AAAS annual meetings, the Office of International Science (OIS) is planning a special program for both foreign and U.S. graduate students at the 20–25 February Denver meeting.

A major activity of the program will be an OIS-sponsored workshop on Monday, 21 February, which will review and evaluate the relevance and effectiveness of U.S. graduate programs in training foreign students to meet the needs of their countries. Topics to be discussed will include the development of new graduate programs around the specific needs of foreign graduate students, the transfer of technology, and the identification of the roles of foreign graduate students in the overall development of their countries. A reception will follow the workshop and will provide students with the opportunity to meet with colleagues, the AAAS Board and staff, and other annual meeting participants.

A hospitality center, to be staffed by a joint student steering committee, will provide an informal gathering place for students, faculty, and other AAAS members throughout the annual meeting. Information on accommodations, ongoing panels and symposia, and other scheduled activities will be provided and meetings between students and scientists participating in symposia and panels will be arranged there.

The OIS will sponsor up to 20 foreign graduate students studying in the United States to attend the Denver meeting by providing grants of up to $200 toward travel costs to and living expenses in Denver. Free registration will be provided, and special student accommodations will be arranged. Students interested in applying for the OIS annual meeting grants should send a curriculum vitae and a short statement of approximately 300 words supplying the following information:

- focus of current research;
- career plans (that is, how training is expected to be applied both in this country and upon return to home country); and
- particular interest in attending the AAAS annual meeting.

Applications should be sent to the Office of International Science, AAAS, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036, for receipt by the OIS no later than 10 December 1976.