

“exclusivity” since other publishers are free to adapt the federally funded BSCS material. This was in 1968, when BSCS was addressing the question of whether it should cease operations, because the high school biology course was complete, or continue with future revisions of the course and with other projects. The decision was to carry on. Developing in new directions meant finding ways to be less dependent on NSF, and this was difficult with no royalty income.

The device struck in the negotiations was for the publishers to provide “grants”—fixed dollar amounts not tied to sales. The final agreement, to which NSF officials gave formal agreement, provided that NSF would receive 8 percent royalties on the second edition—said to be on the high side for normal commercial rates—and BSCS would get grants totaling \$800,000, the sum now in dispute. The publishers apparently were agreeable to the arrangement because it assured them of someone to prepare the third edition, which BSCS proceeded to do. It was the grants with which the auditors took issue in 1974, arguing that they were a form of royalty and should be remitted to the government.

The grants assisted BSCS in its transition to a permanent and ultimately independent status. In 1972 BSCS formally separated itself from the university and became a nonprofit educational organization, with William V. Mayer, a University of Colorado biology professor who had been director of BSCS since the middle 1960's, assuming the presidency. BSCS, it should be noted, has not for a number of years been simply an NSF grantee elaborating a single curriculum. While still stressing biology, BSCS provides materials for kindergarten through college. It has devised courses for special groups of students, such as the educationally mentally handicapped and academically unsuccessful students. BSCS has augmented its textbooks with a wide range of audiovisual and other supplementary material and has assisted foreign educators in adapting BSCS material for use in their countries.

BSCS's annual budget is up from \$300,000 a decade ago to about \$1.5 million this year. And it has major support from the Office of Education as well as from NSF, plus smaller grants from private foundations. Policy is made by a board of directors drawn mainly from among university scientists. BSCS now employs about 60 people full time, about 20 of them at the professional level, the rest in support jobs. Much of the work is still done, however, by teams of university scientists, public school educators,



Biological Sciences Curriculum Study headquarters near Boulder, Colorado.

and other specialists, and as many as 200 people may be in Boulder at a particular time in the summer participating in writing conferences and meetings.

The next step on the NSF claim is the GAO findings. This could take several months, since BSCS is still completing its response. The delay on the BSCS end is in part a result of the mass of correspondence and documentation which must be sifted through because the years from 1963 to 1974 are involved. Furthermore, BSCS officials and lawyers were fully occupied during the period of the embargo dealing with the problems of that crisis.

BSCS officials decline to discuss the claim in detail while the matter is under examination and the possible subject of litigation, but it is evident that, especially in the case of the main part of the claim, they feel BSCS is the victim of ex post facto findings for actions which had NSF approval.

BSCS's subject matter touches sensitive areas—evolution, sex, population problems, genetics, and racial differences—and by and large BSCS has been bolder than commercial publishers in pointing out social issues related to certain scientific topics. A section on human reproduction being tested for HSP, for example, was one target Conlan chose to criticize.

Some observers regret that Congress involved itself directly in the matter of the claim against BSCS. As it happens, congressional pressure seems not only to have caused the embargo on funding but also hastened the *modus vivendi* which appears to guarantee BSCS continued

funding for HSP while the case is being thrashed out.

Committee involvement was probably inevitable, since underlying the BSCS affair are serious questions about the federal role in curriculum development. That role has been defined largely by ad hoc actions over a period of nearly 20 years. Both the kinds of curriculum being developed and the circumstances in education have changed markedly in that period and the troubles of the last year and a half would seem to indicate that it is time Congress and NSF tidied things up.

—JOHN WALSH

RECENT DEATHS

Graham Clark, 63; former associate clinical professor of ophthalmology, Columbia University College of Physicians and Surgeons; 13 June.

Patrick J. Farace, Sr., 53; associate professor of operative dentistry, West Virginia University; 9 June.

Frederick G. Keyes, 90; professor emeritus of physical chemistry, Massachusetts Institute of Technology; 14 April.

Katharine E. McBride, 72; former president, Bryn Mawr College; 8 June.

Cristos D. Papakyriakopoulos, 62; senior research mathematician, Princeton University; 29 June.

William W. Wittberger, 52; former professor of medicine, Ohio State University; 23 June.