FROM THE DESK OF THE EXECUTIVE SECRETARY

The increasing concern of late in the press and in communities around the country regarding the sorry state of science and mathematics education has reminded me of one of the fundamental reasons I was attracted to AMCET back in 1960. The Association then, and I think still does, endeavored in its meetings and publications to promote the teaching of biology at all levels of the educational ladder its membership occupied. Further it also expressed a very healthy concern for the other areas of science and mathematics as well. This was of course the Sputnik era, and the governmental fervor which led to the funding of NASA had spilled over into NSF with its resultant benefits to both secondary and collegiate teaching. I'm sure many of you remember workshops and institutes of all sorts. From the zenith of this time, however, there has been a steady decline in these sorts of governmental sponsored efforts to enhance science education. Anyone seeing the recent past and projected NSF budgets knows firsthand the truth of this. AMCET participated in many of these, as well as attempting to provide a base to which teachers, active in their respective areas could turn for assistance. It seems to this observer that the problem today is of a dimension far greater than that which triggered the Sputnik era response. Additionally the deterioration seems to be broader and much deeper than before. In the sixties, science and mathematics were being taught, albeit at unacceptable levels. Today in some areas, there are science gaps in the educational curricula simply because there is no one available to teach. Or if science is being taught it is generally being done by someone without the proper preparation. The principal solutions of the sixties, institutes, workshops and curricular approaches, cannot be utilized to the same extent today as in the past. Certainly those teachers presently working in science would benefit from this sort of approach, any active teacher needs refreshers from time to time. However, the problem is in the main drastically different from before.

It is no secret that teachers in all disciplines, but most especially in science and mathematics, have been leaving the profession at alarming rates. Certainly the projections of lowered future student populations have had some affect in this area, at least to allow down the production of new entry teachers, but the primary reasons seem to be related to the environment in which the teacher must work. Administrations, Boards, parents all have shifted some of their responsibilities onto the shoulders of the classroom teacher without giving them any of the needed authority. Financial pressures certainly exist, but in the teaching profession they always have existed. I think it is reasonable to say that teachers really are not in the business for the money. Some of you may have read the article by President Reagan's son in Newsweek on his reasons for quitting the Ballet—the lack of respect, the long hours and the low salary. Does this sound somewhat familiar to you?

There is some hope, but it doesn't appear to be much at present. The papers and TV are now informing us that NSF and the Office of Education are increasing their budgets in the areas of science and mathematics education. Any increases are of course welcome, but it seems to be a band-aid attempt to staunch a main arterial bleeder. We are in serious trouble from K through 12 with respect to decent science and mathematics education. (We are in almost as bad a shape in other areas as well, which accounts for all the cries you hear from the public for a 'Back to Basics' curriculum.) We don't have the warm bodies to put into these classes. Plans to train surplus arts and humanities teachers to teach science and math are I'm afraid not going to do the trick. With all due respect to our colleagues in other disciplines, they are not scientists or mathematicians, and retraining in these areas won't do them any good, nor will it help education. It's aspirin when we need antibiotics. Somehow we will have to supply teachers to go into education across the board. We can't work on elementary teachers to the exclusion of secondary, or vice versa. Whatever
we do will require a considerable degree of coordination because it is going to require schools to work with one another to a degree I can't recall seeing before. For this reason I think regional groups such as AMCBET could play a very important role in this cooperative effort. We already have a built in mechanism of information exchange. We have memorials in all types of educational settings. Jointly I feel we could develop several means whereby the output of teachers of science and math could be increased.

At this point I think I would like to put the ball in all of your courts. The matter I feel goes to the heart of what AMCBET has and should always stand for. It is something I feel could be quite appropriately handled in BioScence and in our meetings. As Executive Secretary I would be more than willing to coordinate any efforts the membership wanted to get going in this direction. What is needed is your input, your desire, and your good will.

RESPONSE ANYONE????

********************************************************

My apologies to many of you for including on the dues billing amounts that you had paid late last summer, specifically the amount calculated to switch us over to the calendar year billing. Every time I use our computer to do something I learn more about the basic fact that it is a very stupid machine. One of our work study students did very diligently enter these amounts into your accounts, however the computer was not commanded to Save this data. Since your files can only be updated with this command, said information was never entered. Fortunately the office, like many of you who may be switching to some computer use, still saves paper, and we did have a record of your payments. I am using this very public means to apologize to all of you, especially those who noted such on your returned billings.

********************************************************

BIOLOGY AT ST. OLAF

by

Harold Hansen (Professor Emeritus, St. Olaf)

The Biology Department occupies the 200 level (main campus level) of the St. Olaf Science Center, a building shared with the departments of chemistry, physics, mathematics and nursing. The departments enjoyed a fine working relationship with the local architects (Sovik, Mathre, Sathrum and Quanbeck) in planning the three million dollar building which was completed in 1968. A large foyer with two adjacent auditorium-type classrooms and the science library are shared by these departments. The biology area includes a core of teaching laboratories, all conveniently clustered about a central stock room. The perimeter is occupied by two classrooms, faculty offices and research labs, a student research room, special facilities (optical, controlled environment, darkroom, animal room, greenhouse), the departmental office and a seminar room (with adjacent coffee kitchen!). Although some computer terminals are located on this floor, principal computer facilities are on the 100 level where they are accessible to all students. Special shop facilities (for wood and metal work) are also on that level. The department has additional storage areas on the lowest level, with doors especially convenient for loading field gear.

Student registrations in the department number about 650 per semester from a total college population of about 3000. The number of graduating majors is high (97 in 1982) and includes those who prepare for secondary school teaching or for medical, dental, veterinary or graduate schools. In his or her first two years at St. Olaf, a major-oriented student would typically take a course in Cellular Biology and Genetics, one in Organismal Biology, two semesters of chemistry, two of mathematics, one in physics plus an additional course in biology. This plan enables the student to get a strong foundation in the sciences and thus