The Status of College Science Teaching

Considerable national attention has been focused on the “crisis” in science education at the pre-college level, but we do not hear much about the situation in college science teaching. The College Committee of NSTA has conducted a national survey of college science teaching to obtain some basic data upon which future actions to improve college science teaching might be based. In October 1983 approximately 2050 survey forms were sent to a random sample of biologists, chemists, physicists, and earth scientists at 2-year and 4-year institutions. Of these, 873 forms (43%) were completed and returned. Four hundred and four forms (46%) were from 2-year college faculty; 450 forms (52%) were from faculty at 4-year institutions; 19 forms (2%) were from faculty at other kinds of institutions. The majority of the respondents (66%) had more than 10 years of college teaching experience, and 85% of the respondents taught an introductory (freshman) college science course.

The survey included questions concerning teaching modes, the use of instructional aids, conditions relevant to teaching at each respondent’s institution, suggestions for changes that could be made to optimize teaching, and suggestions concerning how NSTA and/or the Society for College Science Teachers (SCST) could help improve college science teaching. Selected results from the survey are included in this report.

Changes to Optimize Teaching

An important survey question was, “What would be the most helpful changes that could be made at your institution to optimize your teaching? Please list at least three suggested changes in order of importance.” Suggested changes identified among the top three priorities of 739 individuals who responded to this item were:

- Obtain more and better laboratory, demonstration, and teaching equipment, including computers. (42% identified this need among the top three priorities.)
- Lower teaching loads and provide smaller class size. (36% identified this need among the top three priorities.)