

NEWS OF THE American Physical Society

Vol. 1 Number 2

November 1989

Physics Profs Alert Bromley To Ph.D. Crisis Ahead

APS, AAPT send letter

Since his appointment by President Bush as director of the Office of Science & Technology Policy, D. Allan Bromley has been nothing if not an active correspondent in the physics community. The Topical Conference on Issues in Graduate Physics Education and Research—sponsored by the American Association of Physics Teachers in cooperation with APS—has exchanged letters with Bromley over what it perceives as the fast-dwindling supply of physics doctorates in the U.S., and the APS leadership recently had an informal meeting with the new director to discuss various physics-related issues.



Government Organizations Address Crisis In Science Ethics

APS may consider expanded statement

By Bob Strauss

Although the physics community has, to date, remained relatively untouched by the type of scandals now plaguing other scientific disciplines—plagiarism in medicine, falsification of data in biological research, etc.—all science is the focus of two reports on ethics recently issued by the Congressional Research Service and the National Science Board and a new publication of the National Academy of Sciences, “On Being a Scientist.” In addition, the APS Panel on Public Affairs plans to recommend to the Council that it issue a new statement on ethics in physics research.

The CRS report, “Scientific Misconduct in Academia: Efforts to Address the Issue,” offers a wide-ranging analysis of the ethics crisis. The report’s introduction states, somewhat diplomatically, that “there is some acknowledgment that the

TYPES OF MISCONDUCT

according to stages in the publication process

PRODUCTION

• Plagiarism (appropriate another’s idea, data, analysis) • Fabrication (Record data without doing the experiment) • Falsification (intentionally recording observations falsely)

REPORTING

• Misrepresentation or non-representation of data

DISSEMINATION

• Unacknowledged collaborators • Honor-

if science is to progress. . .hence, scientists caution against equating poor or questionable judgment with misconduct.” (See table, left).

Experts, the report acknowledges, differ as to the prevalence of scientific misconduct, but the causes are generally agreed upon:

*Competitive pressure to publish, leading to the practice of submitting manuscripts in “least publishable units” and cutting corners in other ways

*The unwillingness of some scientists to share data in light of the increasing financial ties between science and industry

*Inadequate lab supervision due to the intractable size of research programs

*The practice of granting “gift authorship” to senior researchers

APS Wrestles With U.S. Stance On UNESCO

Should country rejoin?

When the APS Council meets in Anaheim on November 12, a major topic of discussion will be the recommendation by the Panel on Public Affairs (under the advisement of the Subcommittee on International Scientific Affairs) that APS urge the U.S. to rejoin the United Nations Educational, Scientific and Cultural Organization (UNESCO).

According to the SISA report, the U.S. had a number of reasons for withdrawing from UNESCO in 1984: the organization had become excessively bureaucratized and beholden to foreign governments; education, science and culture had taken a back seat to (largely anti-Western and anti-democratic) posturing; and the UNESCO leadership was perceived as corrupt, incompetent, and unwilling or