CONTACT *SCIENCE*

Letters to the Editor
May be submitted via e-mail (at science_letters @aaas.org), fax (202-789-4669), or regular mail (*Science*, 1200 New York Avenue, NW, Washington, DC 20005, USA). Letters are not routinely acknowledged. Full addresses, signatures, and daytime phone numbers should be included. Letters should be brief (300 words or less) and may be edited for clarity or space. They may appear in print and/or on the Internet. Letter writers are not consulted before publication.

Subscription Services
For change of address, missing issues, new orders and renewals, and payment questions, please contact AAAS at Danbury, CT: 800-731-4939 or Washington, DC: 202-326-6417, FAX 202-842-1065. Mailing addresses: AAAS, P.O. Box 1811, Danbury, CT 06813 or AAAS Member Services, 1200 New York Avenue, NW, Washington, DC 20005 • Other AAAS Programs: 202-326-6400

Member Benefit Contacts
For Credit Card: MBNA 1-800-847-7378; Car Rentals: Hertz 1-800-654-2200 CDP#343457, Dollar 1-800-800-4000 #AA1115; AAAS Travels: Betchart Expeditions 1-800-252-4910; Life Insurance: Seabury & Smith 1-800-424-9883; Other Benefits: AAAS Member Services 1-202-326-6417.

Reprints
Ordering/Billing/Status 800-407-9190; **Corrections** 202-326-6501 **Permissions** 202-326-7074, FAX 202-682-0816

Internet Addresses
science_editors@aaas.org (for general editorial queries); science_news@aaas.org (for news queries); science_letters@aaas.org (for letters to the editor); science_reviews@aaas.org (for returning manuscript reviews); science_bookrevs@aaas.org (for book review queries); science@science-int.co.uk (for the Europe Office); membership@aaas.org (for member services); science_classifieds@aaas.org (for submitting classified advertisements); science_advertising@aaas.org (for product advertising)

Information for Contributors
See pages 99 and 100 of the 1 January 1999 issue or access www.sciencemag.org/misc/con-info.shtml

Editorial & News Contacts
North America 1200 New York Avenue, NW, Washington, DC 20005 Editorial: 202-326-6501, FAX 202-289-7562 News: 202-326-6500, FAX 202-371-9227 • Bureaus: Berkeley, CA: 510-841-1154, FAX 510-841-6339, San Diego, CA: 760-942-3252, FAX 760-942-4979, Chicago, IL: 312-360-1227, FAX 312-360-0537
Europe Headquarters: Bateman House, 82-88 Hills Road, Cambridge, UK CB2 1LQ; (44) 1223-326500, FAX (44) 1223-326501 Paris Correspondent: (33) 1-49-29-09-01, FAX (33) 1-49-29-09-00
Asia News Bureau: Dennis Normile, (81) 3-3335-9925, FAX (81) 3-3335-4898; dnormile@twics.com • Japan Office: Asca Corporation, Eiko Ishioka, Fusako Tamura, 1-8-13, Hirano-cho, Chuo-ku, Osaka-shi, Osaka, 541 Japan; (81) 6-202-6272, FAX (81) 6-202-6271; asca@os.gulf.or.jp • China Office: Hao Xin, (86) 10-6255-9478; science@public3.bta.net.cn • India correspondent: Pallava Bagla, (91) 11-271-2896; pbagla@ndb.vsnl.net.in

Successful Priority-Setting Initiatives

Floyd E. Bloom

A common experience is the misperception of relative motion, like that feeling you're moving forward when the train next to you backs up. At the rate at which current economic developments and policy decisions are changing, one could easily believe that the supporters of increased investment in basic sciences are making progress. Economic gains in the stock markets and in the taxes generated from business productivity and high employment in the West have produced economic surpluses that were unimaginable as little as 1 year ago.

Although the failed tobacco settlement did not pay for investments in U.S. science and technology as proposed, domestic spending in these categories was nevertheless increased last year by dipping into the defense budget and the operating budgets of domestic agencies such as the national parks and air traffic control. These decisions seemed very much like commitments. However, those budget decisions are about to run headlong into a wall of obligations that have been neglected and about which decisions will soon be unavoidable. Should the defense budget be increased? Should domestic spending programs be tapped for the increased defense expenditures, as budget rules now permit? How will we fund Social Security and how will we protect health benefits provided under Medicare without major increases in payroll taxes? These competing domestic needs are at the top of a lengthy list that also includes education, crime, highways, and the growing economic inequality among our citizens despite substantial past investments in social policies.

Is it not time for some broader consideration of our priorities?

Scientists are citizens of this larger community of problems as well. If investments in science and technology and the sweeping commitments to education that will be needed to maintain a technologically competent and intellectually motivated workforce are to be realized, is it not time for some broader consideration of our priorities for dealing with these problems? *Setting National Priorities* (at www.brookings.edu/press/review/rev_des.htm) provides excellent source material on the issues and offers some suggestions for their solution. However, such learned expositions miss their goal when those who must make the decisions and rank the needs are not among those who have done the analyses and offered the suggestions.

Moreover, government is not the only source of our investments in science. In developing products, industry already commits more to the final stages of research harvest. Increasingly, philanthropic foundations, mission-oriented charitable societies, and individual private philanthropists are making commitments to support science, and they need a basis for making decisions on what fields to invest in and which scientists should carry their investigative and training banners.

Could a nationwide, or even international, agreement be reached on long-term priorities? Within each such listing, could a shorter-term series of needs and opportunities be identified? Several agreements of this kind have indeed been successful; for example, the Foresight Project in New Zealand [see *Science* **280**, 655 (1998)] and the roadmap strategy for long- and short-term planning that is being used effectively by the semiconductor community and others [see *Science* **280**, 803 (1998)]. In their book *Research Foresight: Priority-Setting in Science*,* Martin and Irvine point to seven essential features of such strategies that have been successful in Japan, Canada, Germany, Sweden, and France: (i) agreement that planning is necessary, if only to expose the issues; (ii) agreement that consensus is necessary to move ahead; (iii) inclusion of decision-makers to grant authority and (iv) of experts to give legitimacy to the final decisions made; (v) an advance commitment to act on the findings; (vi) having the resources necessary to analyze trends and capacities and to plan, and eventually exploit, the recommendations; and (vii) disseminate the findings to those whose involvement and participation will be required. Clearly, it can be done.

*B. R. Martin and J. Irvine, *Research Foresight: Priority-Setting in Science* (Pinter, London, 1989).