

Notices

of the American Mathematical Society

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From the AMS President

Grass Roots

Hypotheses: mathematics enables all the sciences and engineering; our future prosperity rests on new discoveries in science and mathematics; science evolves through a web of interdependent disciplines. Conclusion: the time is ripe to jump-start our federal investment in the future, to renew our commitments to research, to our mathematical and our scientific talent, and to our universities.

This message has been my hallmark. As cofounder of an ad-hoc coalition of presidents of scientific societies, I have helped to put in place a national pro-science movement. Commentator David Gergen christened our initial March 1997 proposal the "7 percent solution". Simply put, we asked that research funding in all fields of science increase by 7 percent in 1998. Our second, "unified" statement emerged last October. It focuses on a ten-year period beginning with fiscal 1999, is signed by over one hundred presidents, and asks for doubling of all science funding. This statement received considerable attention too. It coincided with the announcement of the bipartisan Gramm-Lieberman-Domenici-Bingaman bill, S.1305, to double civilian research funding. In February 1998 President Clinton asked in his budget for historic increases in science funding.

One year ago, whoever dared predict that the president and Congress would fight over who can do more for science and mathematics? Yet today this unlikely circumstance has arrived. It came about through the efforts of a small group of scientists and mathematicians and a handful of members of the Congress. It also received a strong push from prominent writers in the media. This initial success in affecting both appropriations and potential legislation has been no accident.

BUT we are at a watershed.

First: To sustain the pro-science movement, we must make it much broader. Rather than involving a few individuals, we need to generate a **grass-roots movement** in support of mathematics and science.

Second: We must work to ensure that the mathematics component remains central and that an appropriate share of funding goes both into our subject and to **investigators in an appropriate way**.

Some comments: I visited Paris recently and was overjoyed to learn that Claude Allègre, the new French minister of education, research, and technology, has launched a campaign to "debureaucratise scientific research" and to "leave more liberty to researchers." I later went to England and there heard a related story. The Royal Society aims to increase individual investigator-initiated "project grants" in all fields of science. Investigator-initiated projects lie at the heart of work in mathematics, so I take heart in their emphasis worldwide.

The initial success at home of the pro-science movement rested on a few scientists and mathematicians speaking with a few key legislators. But now our goal must be to engage every congressional representative and every senator, as well as the public. If we succeed, there is no question that science will actually remain a top priority of any U.S. president and of the Congress.

How can we take our message to schools and to our representatives? Here is a concrete recipe for the latter, home tested by the AMS. John Ewing organized a Providence town meeting, inviting Rhode Island Senator Jack Reed, along with local mathematicians and scientists from Brown, the University of Rhode Island, and local scientific industries. It worked wonderfully, stimulating interchange with the senator and a long discussion among the participants after Reed left! You too can do this at your universities: work together with a computer scientist, a physicist, a chemist, a biologist, and an engineer. Sam Rankin in the AMS Washington office can assist you. Afterwards, you can offer to advise the representatives or their staff.

Working together we can be a real political force. Over 3 million of us belong to the societies whose presidents form our coalition. With families and friends we comprise an important cross-section of the country; we also represent a relevant number of votes. Not only do we have allies in our universities, but we also find them in industry and in the financial community. Because our economic future depends on our innovation in science and mathematics, research and education are easy sells. The future is in our hands. We must not drop it. We need to remain visible!

—Arthur Jaffe