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Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Organization Files - PCAST

OA/ID Number: 62077
Folder ID Number: 62077-003

Folder Title:
PCAST: General [3 of 3] [1991]

Stack:

Row:

Section:

Shelf:

Position:

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"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9121212

FROM: SHAPIRO, Harold T.: PRINCETON UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/19/91

SUBJECT: AN ESSAY FOR THE PRINCETON ALUMNI MAGAZINE ON THE
ROLE OF THE NATION'S UNIVERSITIES, AND WHETHER IT
COULD SERVE AS THE BASIS FOR A DISCUSSION AT PCAST.

ASSIGNED TO: PCAST

ACTION REQUIRED: FOR DAB SIGNATURE

SENDER'S DUE DATE: OSTP DUE DATE: 05/07/91

DATE COMPLETED: 4/29/91

COPIES TO: D. Allan Bromley
Thomas Ratchford

WHITE HOUSE TRACKING #: CONTACT PERSON:

REMARKS:

DATE RECEIVED: 04/23/91

FILE: PCAST

Princeton University

Princeton, New Jersey 08544

President's Room

9/2/12
RECEIVED

91 APR 23 AM 11:42

OFFICE OF THE
April 19, 1991 DIRECTOR

Dr. D. Allan Bromley, Director
Office of Science and Technology Policy
Old Executive Building
Washington, D.C. 20506

Dear Allan:

Enclosed is an essay I wrote for the Princeton alumni magazine. It will be published in the next week or so. I wonder if such a statement -- appropriately modified -- could serve as the basis for some relevant discussion at PCAST. If you think this is advisable, I will redraft it in a form more appropriate for our colleagues.

Best regards.

Sincerely,



Harold T. Shapiro

HTS/rm
Enclosure

Challenging Times

Earlier this spring I told a Princeton Today audience that I thought this past year had been a very good one for Princeton, but a very difficult one for higher education. A series of unconnected events has eroded confidence in the vision and role of the nation's universities, in their integrity, and in their capacity both to manage their affairs properly and to continue faithfully to serve the nation's interests. These events include:

- Allegations that universities may be charging certain expenditures to federally sponsored research projects that are either not allowed or represent an inappropriate use of taxpayer dollars.
- The retraction of a scientific paper by a distinguished biologist who for three years and through several Congressional hearings had staunchly defended the paper against charges that it was based on fabricated data and who often seemed to believe that scientists were "above" questioning.
- Developments on several campuses that seem to suggest that students and faculty are required to subscribe to a "politically correct" orthodoxy. In the service of demystifying important aspects of our culture, this orthodoxy is thought to reject many of the foundations of rational discourse, open debate, and other valued aspects of western civilization and to do so in an atmosphere of intellectual intimidation.
- An ongoing antitrust investigation by the Department of Justice into the ways in which more than 50 colleges and universities determine tuitions, salaries, and financial aid.
- New legislation that requires colleges and universities to report the graduation rates of their athletes and the incidence of campus crime. Ironically, the initiative by university presidents to institute long overdue reforms seems to have increased awareness of the widespread abuses in intercollegiate athletics.
- Cost and tuition increases that continue to exceed the rate of growth of family income.
- Allegations from many quarters that faculty members do not teach enough, or well enough, because their primary loyalties are to research or to income-producing activities outside of the classroom.
- A growing disjuncture between the perceptions of university-based scientists that support for their work is declining and the fact that federal support for university-based research has risen sharply in the last decade.
- A growing sense that universities have become "just another corporation" and, therefore, should no longer receive special treatment (e.g., tax exempt status).

Many of these events jeopardize the hard-won independence of university faculties. Among other things, they create an unfortunate impression of a very troubling sense of privilege that fails to hold us to our responsibilities and may even suggest that we at universities are exempt from accountability. I believe there is at least some validity to these concerns, and we need to acknowledge that in some cases we need to do a better job meeting our various responsibilities.

At the same time, however, significant positive steps have been taken in many of these areas. Moreover, we need to be sure that in correcting legitimate deficiencies we do not damage these institutions in ways that undermine their essential strengths, contributions, and commitments. The United States still has the best system of higher education in the world, and it is related in crucial ways to other important national activities. These relationships with other sectors of the society, as well



Harold T. Shapiro

as the complex and intricate nature of higher education itself, represent a delicate ecology, and the country would not be served by destroying the balance of what is—on the whole—a very valuable set of cultural arrangements.

I would like to comment briefly on each of the areas of current concern and then offer a few comments about where we go from here.

RESEARCH COSTS

Since World War II, American leadership and vitality in science and technology have been sustained in part through substantial public investment in university-based research. This investment has reaped many dividends, measured both in terms of new discoveries and economic growth and in terms of students who have become the scientists, engineers, researchers, and teachers of succeeding generations.

This particular relationship between the universities and the federal government has been governed by certain fundamental principles. One is that the government will fairly reimburse universities for the costs associated with federally sponsored research rather than putting the burden of these research costs on tuition revenues, state appropriations, or other revenue streams. Another is that universities will seek recovery only for costs that are allowable, fairly attributable to research, and appropriate for reimbursement from public funds.

The costs of research include "direct costs" that can be easily assigned to specific projects, and "indirect costs" that, while just as real, are more difficult to allocate precisely to particular projects. The "assignment problem" arises both out of the nature of certain expenses and the critical fact that the university tries hard to produce education and research together. Our aim is to help the nation reap the great dividends that can be attained by intertwining these efforts. Examples of indirect costs include expenditures for the buildings in which research and teaching are conducted together (including depreciation and utilities), overall campus security and safety, library resources, and central and departmental administration.

The genuine difficulty of allocating indirect costs to thousands of university projects means that there are bound to be differences of opinion, errors of accounting, and even occasional errors of judgment. In most cases these situations are successfully resolved through tough but reasonable negotiation with government auditors.

Periodically, however, a more thorough review is helpful, and recent events have reminded us of the need for persistent vigilance. It is important that the nation's universities pledge their renewed and concerted efforts to be sure that all costs charged to government-sponsored projects meet the dual tests of being allowable under federal regulations and appropriate for the expenditure of public funds. Three years ago the research universities developed proposals that would make the complex process of accounting for joint costs simpler to understand and administer. These proposals have been under discussion with federal officials for some time. My hope is that the current concerns will lead to better university management as well as to a reaffirmation of the principles of fair and full support for the genuine costs of research. These principles have been an important foundation of the quality of our national efforts in research, the preeminence of American universities, and the capacity of our country to sustain a position of economic and cultural leadership in the decades ahead.

Finally, we need to confront the simple fact that the costs of contemporary scholarship are rising quickly. If, for example, we wish to sustain leadership in science and technology, we must demonstrate a national willingness to support the necessary costs. On the other hand, we need to recognize that the rising level of resources required to support each investigator inevitably leads to the question of how quickly the number of university-based investigators needs to be expanded. It is the failure to discuss both sides of the issue that accounts for the different perceptions of scientists and federal agencies on the adequacy of research funding.

SCIENTIFIC INTEGRITY

While there is always cause for concern when established scientific practices and procedures are violated (as they were, for example, in the now infamous "cold fusion" announcements), what is perhaps most troubling about some of the current cases is the unwillingness of some university-based scientists to examine seriously the allegations of mistakes or misconduct. Nothing undermines public confidence or damages science more than actions that suggest that scientists (or anyone else, for that matter) are not accountable to others. Whether public or private, universities operate as public trusts, and the public is entitled to expect that universities will enact workable procedures—as many have—to conduct honest investigations when necessary, to protect those who come forward with information, and to take action when action is required.

The goals in this area seem clear: to avoid intrusive procedures that could seriously interfere with appropriate creativity, collegiality, and candor; to avoid regulation that is unnecessarily costly and time-consuming; but to recognize that we are accountable, as individuals and as institutions, not only for public funds, but for the public trust that is placed in us.

POLITICALLY CORRECT

Many Americans seem to believe that universities in recent years have been deciding whether to continue to expose students to the "traditional canon" of Western literature and ideas or to substitute a new set of values and approaches, including the voices of women, minorities, and non-Western authors that traditionally have not been well represented on our campuses. In fact, the question is seldom "either/or." Most universities continue the long practice of allowing the curriculum to evolve dynamically and remain strongly committed to the most sustaining traditions of our culture and to our need to understand better both the nature of our own culture as well as other cultures and ideas that have shaped our civilization.

While strengthening many traditional approaches to learning, most universities have sought to develop environments where new ideas can be nurtured and examined, where traditionally excluded groups can participate fully and where all members of the community can appreciate their commonalities while learning from their differences. On some campuses measures have been adopted or proposed in support of these goals that have appeared to infringe on such a fundamental university tenet as freedom of speech. In almost all such cases, the institutions themselves have taken corrective action. More important, I believe a strong consensus has emerged on campuses all across the country that, particularly in a diverse and pluralistic society, universities have a special responsibility to resist orthodoxies of all kinds and to encourage the expression and examination of a wide range of views. Still, surely this is an area where we can never afford to be complacent.

ANTITRUST

The antitrust investigation has now been going on for almost two years, with no clear indication of exactly what is at issue and with no end in sight. Universities have said that they do not, and do not wish to, collaborate in determining tuitions or salaries. The concern is not that this investigation will codify that position, but that it could undermine the general commitment to openness and appropriate information exchange that has long characterized the best American universities—public and private—or that it could interfere with the many highly productive and appropriate ways in which universities do cooperate (on academic programs, on shared equipment and library resources, and so on).

With respect to student aid, universities have questioned the applicability of antitrust law to decisions that essentially allocate charitable dollars to provide needy students with a further discount below an already subsidized price. Whatever the lawyers may decide, at the level of policy I believe we have a powerful national interest in encouraging universities to expend their financial aid dollars by spreading them over as many needy students—and meeting as much of their need—as possible. This is, of course, the same principle that governs the distribution of federal aid.

This investigation already has diverted substantial sums of money from educational programs to lawyers and other costs of compliance. As long as it remains unresolved, it contributes to public anxiety and suspicion about tuition levels and student aid. I hope we can reach

resolution soon, without damaging either the quality of our universities or their commitments to need-based aid.

OTHER ISSUES

Intercollegiate athletics is an area where a number of reforms have recently been enacted. Clearly there is more to be done, but the trend is in an encouraging direction. Similarly, there is general acceptance that universities have an obligation not only to attend to concerns about safety but to provide the public with appropriate information. With respect to tuitions, many universities, like Princeton, have been seeking to control costs, to moderate the rate of increase in student fees, and to provide ever-increasing amounts of financial aid. In the current year, this has been quite difficult for many state-supported universities as state support has declined substantially. Finally, there has been renewed attention on many campuses to the importance of teaching undergraduates, to the preparation of graduate students as teachers (we have just instituted an exciting new program for graduate student teachers at Princeton), and to the recognition of excellent teaching by the faculty. We will present the first of our new teaching awards at Opening Exercises next fall.

WHERE WE GO FROM HERE

It is critical for universities to behave in a way that sustains public trust. If at times we fall short, it is appropriate to acknowledge our shortcomings and to take corrective action. It is equally important, however, that in addressing legitimate concerns—at our own initiative or in response to others—we do not undermine broader and equally important national purposes. It is important also that we be sensitive to preserving the conditions necessary to sustain the quality of our universities and to benefit from the great dividends that our system of higher education can continue to generate.

At the heart of many of these matters are the issues of cost, burden sharing, value received, and the distribution of benefits. On these critical matters, there is widespread disagreement. However we decide to share the future benefits and burdens of society's investment in research, development, and scholarship, we should not make the error of opting for lower quality. This would be a hoax on the next generation—our children and grandchildren. It has always been a puzzle to me why many seem to resent the drive for quality in higher education. When I talk with alumni, I occasionally ask what they would do if they needed an excellent surgeon or lawyer. Would they look for the lowest bidder or would they be willing to pay the costs of quality? The answer is invariably the latter. I don't want to overstate the comparison, but in higher education and in research and development, too, quality is expensive. The real question concerns how society shares the costs and the benefits.

For the last 45 years, the costs of quality have been shared among several partners. At private universities like Princeton, these partners include students and families who pay tuition; alumni, through annual gifts and the earnings on contributions to the endowment; corporations and foundations; and the federal government, through its student aid programs and its reimbursement for the costs—direct and indirect—of sponsored research. Public institutions include each of these partners (although students pay a much smaller share) plus the taxpayers of the state in which they are located.

In my view, each of these partners is well served by its investment. Undoubtedly each would like to pay less for what it gets, and certainly all the partners can benefit from our commitment to improve management, to control costs, and to enact efficiencies wherever possible. But at some point we have to pay the price of quality and each partner has to pay its share, unless we are prepared to cede the position of leadership in higher education that has served this country so well.

In the last half century America's colleges and universities have come to play a critical and complex role in many aspects of our national life. This role—serving both society's current interests and its need for new options—inevitably produces tensions. These tensions, however, often are a sign of health, a sign that universities are playing an important role in education, discovery and the development of new approaches. While we must try to ensure that these institutions make the best possible use of the resources entrusted to them, we must also ensure that they have the support and the independence they need to fulfill their role as society's agent in developing options for a better future.

THE WHITE HOUSE
WASHINGTON

April 29, 1991

taction
9/2 12/2

Dear Harold:

Thank you for your letter of April 19, 1991, and your excellent article on the challenging times facing American universities.

I very much agree with your suggestion that the President's Council of Advisors for Science and Technology (PCAST) should further consider the issue using your paper as a basis for discussion. As you proposed, a new version appropriate for PCAST, would be most helpful. Also, I would hope that the PCAST could reach consensus on this most important matter and advise the President, perhaps by way of a PCAST Issue Paper now and during a meeting later in the Roosevelt Room.

Sincerely,

151

D. Allan Bromley
Assistant to the President
for
Science and Technology

Dr. Harold T. Shapiro
President
Princeton University
Princeton, NJ 08554

PCAST/OSTP/TWelch:ab:4/29/91
Dr. Bromley's Chron
PCAST Chron

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9121215

FROM: MURRIN, Thomas J.: DUQUESNE UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/15/91

SUBJECT: STATUS OF PCAST RELATED PAPERS

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: Thomas Welch
D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 04/23/91

FILE: PCAST



OFFICE OF THOMAS J. MURRIN
DEAN OF THE SCHOOL OF BUSINESS AND ADMINISTRATION

9/2/215
DUQUESNE UNIVERSITY

PITTSBURGH • PENNSYLVANIA • 15282

(412) 434-5156

FAX (412) 642-9106

91 APR 23 All: 43

OFFICE OF THE
DIRECTOR

April 15, 1991

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
The White House
Washington, DC

Dear Allan:

Following on your recent, welcome phone call, I've been
awaiting PCAST-related papers --- but none have arrived yet!

Just so you know . . .

Many Thanks!

Good Luck!

God Bless!

Most sincerely,

Thomas J. Murrin
Dean

TJM:ss

Note: 4/22
EW has incorporated MVC's
Suggestions.

SL

Document Originally
Attached to
Following Page

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9121132

FROM: WYATT, Joe B.: VANDERBILT UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/12/91

SUBJECT: RE: An appointment on the HPC Panel of PCAST.
REQUEST TO RECONSIDER THAT HE SERVE AS A SPECIAL
GOVERNMENT EMPLOYEE BUT RATHER AS AN INDUSTRY
REPRESENTATIVE.

ASSIGNED TO: PHYSICAL SCIENCES

ACTION REQUIRED: FOR DAB SIGNATURE

SENDER'S DUE DATE: OSTP DUE DATE: 04/30/91

DATE COMPLETED: 4/22/91 by EW/DAB

COPIES TO: D. Allan Bromley
Thomas Welch

WHITE HOUSE TRACKING #: CONTACT PERSON:

REMARKS: Please note that this has been reassigned to Dr. Wong for DAB's
signature.

DATE RECEIVED: 04/16/91

FILE: PCAST-HPC PANEL

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9121132

FROM: WYATT, Joe B.: VANDERBILT UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 04/12/91

SUBJECT: RE: An appointment on the HPC Panel of PCAST.
REQUEST TO RECONSIDER THAT HE SERVE AS A SPECIAL
GOVERNMENT EMPLOYEE BUT RATHER AS AN INDUSTRY
REPRESENTATIVE.

ASSIGNED TO: D. Allan Bromley

ACTION REQUIRED: AS NECESSARY

SENDER'S DUE DATE:

OSTP DUE DATE:

04/30/91

DATE COMPLETED:

COPIES TO: PHYSICAL SCIENCES
Thomas Welch

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 04/16/91

FILE: PCAST-HPC PANEL

1132

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

April 22, 1991

Dear Chancellor Wyatt:

Thank you for your letter of April 12, 1991, concerning your service as a consultant to OSTP in support of the PCAST study on high performance computing and communications.

Your letter confirms what I have been told of your reluctance to fill out the forms required of appointment as a special government employee. I well understand your frustration with the disclosure procedures that we have to follow. However, your proposal to serve as a representative of research universities as a group may have been based on an imperfect understanding of the situation with regard to industry representatives.

Because of the rather narrow focus of the study, industry leaders doing business in the field are deemed by counsel to have an unavoidable conflict of interest. To have input from industry, we have to get it in the form of industry positions conveyed by spokesmen of industry groups.

Our invitation to you was based on your personal expertise and experience. As eager as we are to have you serve, we cannot be party to any arrangement that might be deemed to be an attempt to avoid the disclosure requirements. Accordingly, I must join Gene Wong in urging that you comply with the procedure for appointment, even if you find it a somewhat onerous burden.

Sincerely yours,



D. Allan Bromley
Director

Mr. Joe B. Wyatt
Chancellor
Vanderbilt University
Suite 211, Kirkland Hall
Nashville, Tennessee 37240

VANDERBILT UNIVERSITY



NASHVILLE, TENNESSEE 37240

TELEPHONE (615) 322-7311

RECEIVED

Office of the Chancellor • Suite 211, Kirkland Hall • Direct phone 322-2168

91 APR 16 P2:33

April 12, 1991

OFFICE OF THE
DIRECTOR

Dr. Allan D. Bromley
Director, Office of Science
& Technology Policy
New Executive Office Building
725 - 17th Street N.W.
Washington, DC 20506

Dear Dr. Bromley:

I am writing to you in regard to your invitation to apply to serve as a consultant to the Office of Science and Technology Policy (OSTP) by accepting appointment on the High Performance Computing and Communications Panel of the President's Council of Advisors on Science and Technology (Advisory Panel). I am, of course, honored to have been invited to apply and have a great interest in the fields of technology which will be considered by the Advisory Panel.

Because of my desire to be of service to the OSTP, I attended an informal meeting of potential Advisory Panel members, held on March 15, 1991. At that meeting I met several prospective members who were employed in the computer industry or other private enterprises and who have been invited to serve on the panel as industry representatives. I also learned from my conversations with them that they had not been asked to complete the detailed financial disclosure form that had been sent to me, nor were they to be bound by the conflicts of interest laws and regulations that would apply to me if I accept appointment to the Advisory Panel under the terms of my invitation.

After looking into the matter further, I have learned that the Advisory Panel will be composed of two types of members: those who serve as individual advisors; and those who are spokespersons for a special interest (industrial representatives). As an individual advisor, I will become a special government employee and be subject to the federal conflicts of interest laws and regulations. In contrast, the special interest representatives are not subject to the same legal restraints, but will, nonetheless, advise your office in this important field of science.

I have concluded that if I serve as a special government employee, I will be in a more burdensome role than the role the industry representatives will assume. The distinction in function as contemplated between me and the industry representatives does not seem to be reasonable. As you know, I

am the Chancellor of a university engaged in federally supported research in areas closely related to high performance computing and communications. Although I have a personal interest in computer science and related technologies, I have a professional point of view in this area that is reflective of my experience as chief executive officer of a research university. I believe it is unrealistic to define any advice I would provide on the Advisory Panel as personal and distinct from my role as head of a research university. Consequently, I cannot understand how my advice would be any less representative of the point of view of research universities generally, than the advice of industry representatives who will combine their personal knowledge with the perspectives of the employers for whom they work.

Additionally, the conflicts of interest potential I will face if I serve as a special government employee may be substantial. In the future, faculty of Vanderbilt University may be competing with faculty of other research centers for federal funds that are appropriated as an outgrowth of recommendations of the Advisory Panel. If my service on that committee would, in any way, impede Vanderbilt faculty from receipt of such research funds, acceptance of appointment to the Advisory Panel would be a mistake. I cannot be sure, in light of the uncertainty of the future and the stiff competition among research centers for federal funds, that some disadvantage might not be inflicted upon Vanderbilt faculty seeking federal support in the areas of science which I might be asked to address as an Advisory Panel member.

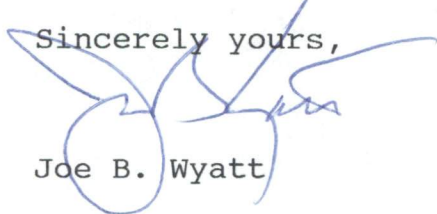
In addition to this difficulty, I may face a personal restraint in working in the future for another research institution or private enterprise with activities that relate to the matters I considered as an Advisory Panel member. This personal restraint would apparently not apply to industry representatives.

In light of my concerns about accepting the invitation to apply to serve on the Advisory Panel as a special government employee, I asked Dr. Eugene Wong, Associate Director for Physical Science and Engineering, who has been responsible for determining the membership of the Advisory Panel, to consider allowing me to serve as a representative of higher education research institutions. I have learned through communications between an attorney in Vanderbilt's Office of General Counsel and Dr. Wong, that he has determined not to accept my request that I serve in a representative capacity. However, the invitation to serve in an individual, consultant capacity is still outstanding.

Dr. Allan D. Bromley
April 12, 1991
Page 3

I am, therefore, appealing to you to reconsider Dr. Wong's determination and allow me to serve on the Advisory Panel in a representative capacity. I would be happy to discuss this matter with you and will wait to hear from you before responding to the invitation to serve in an individual capacity.

Sincerely yours,



Joe B. Wyatt

cc: Senator Albert Gore
Dr. Eugene Wong

[ostp.jw]

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120849

FROM: PACKARD, David: HEWLETT - PACKARD COMPANY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/18/91

SUBJECT: ARTICLE: DAVID PACKARD SAYS HEARING WAS 'A SAD DAY
FOR STANFORD'.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
ALL ASSOCIATE DIRECTORS

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 03/22/91

FILE: DAB CORRESPONDENCE*PCAST

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120849

FROM: PACKARD, David: HEWLETT - PACKARD COMPANY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/18/91

SUBJECT: ARTICLE: DAVID PACKARD SAYS HEARING WAS 'A SAD DAY
FOR STANFORD'.

ASSIGNED TO:

Copied for AG's
3/22

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED: _____

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 03/22/91

FILE: DAB CORRESPONDENCE*PCAST

RECEIVED

HEWLETT - PACKARD COMPANY

1501 PAGE MILL ROAD

PALO ALTO, CALIFORNIA 94304

DAVID PACKARD
CHAIRMAN OF THE BOARD

91 MAR 22 P 3:14

JOHN W. HILL
DIRECTOR

March 18, 1991

Dr. D. Allan Bromley
Assistant to the President for
Science & Technology
Old Executive Office Building
17th St. & Pennsylvania Ave. N.W.
Washington, D.C. 20506

Dear Allan:

I had an opportunity to get our favorite issue in the news, and I would like to move ahead now and see if we can get together and straighten this out along the lines we have been working on. If you have any trouble in doing this, let me know.

Sincerely,



David Packard

DP:mmp/my

Enclosure

David Packard Says Hearing Was 'a Sad Day for Stanford'

By Bill Workman

Chronicle Peninsula Bureau

Billionaire David Packard, one of Stanford University's major benefactors, agreed yesterday with congressional investigators who claim that Stanford wasted taxpayer research dollars on dubious expenses, but he said other leading research universities "have to share the blame for what is a big problem."

During an phone interview from Washington, Packard called for reforms in federal accounting rules to "take away the temptations" for abuse from "all the trustees, presidents and administrators of our great research schools."

"It was a sad day for Stanford," Packard said of the congressional subcommittee hearing Wednesday at which Stanford was accused of overbilling the U.S. government

\$200 million for overhead costs of conducting research at the Palo Alto campus.

Representative John Dingell, D-Michigan, chairman of the House Subcommittee on Oversight and Investigations, raised the possibility of criminal prosecution and threatened to cut \$20 million in Stanford research funds. Dingell has said he will expand his committee's probe to include other universities.

"The country club atmosphere at Stanford makes not one iota of contribution to the great research at the university," said Packard.

He was referring to allegations that Stanford had billed to the government portions of numerous, questionable items including \$45,250 for a trustees' retreat at Lake Tahoe and other charges to outfit Stanford President Donald Kenne-

dy's house with luxurious antiques and to provide flowers for the dedication of campus horse stables.

The public embarrassment of his university prompted political scientist John Manley, a longtime Kennedy critic, to call on the Stanford leader to step down. "He simply has to resign. We need someone to come in and clean house... or Stanford is going to be tainted indefinitely," Manley claimed.

There were no signals from Stanford trustees or key alumni that they were ready to urge the departure of Kennedy, now in his 10th year as president.

Packard defended his performance. He said Kennedy, accused of "incompetence" and "rascality" by Dingell, had been a "whipping boy" for other universities, including Harvard, Yale, and Princeton, and had been under "tremendous peer pressure" to try to rationalize and explain the kinds of expenses that Packard said are "charged by all the universities" in calculating what part of research overhead costs can be billed to the government.

Kennedy, he said, was "operating in an impossible situation." But there could be "no honest justification" for most of the challenged expenses at Stanford, said Packard, who served during the Nixon administration as a deputy secretary of defense and who headed a commission on defense management in 1986.

"I intend to put this issue on the front burner," said Packard. "Coming up with a solution will be painful" for the nation's top research institutions, he said, "but they brought it on themselves, doing things that should not be done."

Kennedy said that although Stanford concedes that it made accounting errors, the mistaken charges have been corrected and the hearing produced "no evidence of wrongdoing at Stanford."

He reiterated that the university is committed to "take all necessary steps to enhance public confidence in our stewardship of public funds."

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120779

FROM: SHAPIRO, Harold T.: PRINCETON UNIVERSITY

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/13/91

SUBJECT: BRIEF OBSERVATIONS ON THE FCCSET COMMITTEE REPORT ON
EDUCATION AND HUMAN RESOURCES.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Thomas Ratchford
Maryanne Bach
Thomas Welch

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 03/18/91

FILE: PCAST*FCCSET*~~EDUCATION~~

Princeton University

Princeton, New Jersey 08544-0015

President's Room

RECEIVED

MAR 18 1991 41

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley, Director
Office of Science and Technology Policy
Old Executive Office Building
Washington, D.C. 20506

Dear Allan:

I was sorry to have to miss the March PCAST meeting, but I certainly look forward to our scheduled meeting in April. The purpose of this note is to provide, as requested, some brief observations on the FCCSET Committee report on education and human resources.

It is an extremely helpful report and reflects an enormous amount of very productive activity by the FCCSET Committee. The work done to date will provide many dividends for education in the coming years. It was really quite impressive to see such a coherent and understandable description of the current federal funding situation for education as well as proposals for the future. The general thrust of the proposals are supported by convincing rationales and by admirably pragmatic approaches. In short, it is an extraordinarily ambitious and promising undertaking. My greatest overall concern is that we might not be able to meet the implied time schedule at existing levels of funding.

There is, however, one general point that I believe is under-appreciated by the Committee and may be worth emphasizing. It is understandable that the report focuses on the pre-college level. That is where we have the greatest problem. The problems at the K-12 level, however, will take many years to resolve and require very large resource commitments by various levels of the public and private sector. There is another avenue open to us that would solve some of our problems a lot quicker and with fewer resources; namely, decreasing the rate of attrition from science programs by students who are already undergraduates. Thus, although there are strong arguments that the greatest need for improvement in science and mathematics education lies at the pre-college level, it is less clear to me that a cost/benefit analysis would argue for the same short-term funding priorities. To put the matter in a different way, one might get more leverage by making some investments focused on undergraduate education with the objective of decreasing attrition from science and engineering programs. My understanding of the FCCSET report indicates that undergraduate education ranks just behind pre-college programs.

- 2 -

Over the long haul, there is no question that activities at the pre-college level are the most critical. The issue, if any, is whether we might get some short-term leverage by devoting some funds to attacking the problem of undergraduate attrition in science and engineering.

Best regards.

Sincerely,

A handwritten signature in dark ink, appearing to read 'H. Shapiro', written in a cursive style.

Harold T. Shapiro

HTS/ms

THE WHITE HOUSE

WASHINGTON

March 26, 1991

Dear Harold:

Many thanks for your letter of March 13 relating to the FCCSET report on education.

The point you raise in your third paragraph is, in my view, an extremely important one and one that has been brought up to me in rather dramatic fashion by the Presidential Award Secondary School teachers whom we brought to Washington as guests of the President last fall. They maintained on many occasions that despite their best efforts, a generation of teaching assistants who were unable to speak English and who gave the impression of not really caring, were turning off the best output of the high schools in science and mathematics and driving them into other fields.

This is clearly a question that we need to inject into the deliberations of this FCCSET Committee as it moves on to its phase two activities and to the revised, updated, and expanded study that it will produce to accompany next year's budget. They have already decided that one of the areas of major importance in their next year's activity will be an examination of our production and treatment of technicians.

We missed you at the March PCAST meeting and look forward to seeing you at the one in April.

With warmest best wishes,

Sincerely yours,



D. Allan Bromley
Assistant to the President
for
Science and Technology

Professor Harold T. Shapiro
President
Princeton University
Princeton, New Jersey 08544-0015

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120741

FROM: LIKINS, Peter

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 03/08/91

SUBJECT: PCAST RESPONSE TO FCCSET REPORT, "BY THE YEAR 2000:
FIRST IN THE WORLD"

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Perry Lindstrom

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 03/13/91

FILE: PCAST

9120741

DRAFT

RECEIVED

91 MAR 13 P 4: 40 March 8, 1991

MEMORANDUM FOR THE PRESIDENT

OFFICE OF THE
DIRECTOR

FROM: D. Allan Bromley
Chairman, PCAST

SUBJECT: PCAST Response to FCCSET Report
"By The Year 2000 : First In The World"

The President's Council of Advisors on Science and Technology (PCAST) has reviewed with appreciation the work of the Committee on Education and Human Resources of the Federal Coordinating Committee on Science, Engineering, and Technology (FCCSET).

The very existence of this report is remarkable testimony to the unprecedented cooperation among the ten agencies of the federal government involved directly in science and technology education; FCCSET is achieving such cooperation in education and in several other areas of interest to PCAST.

In this report we see assembled for the first time the budgetary proposals of all relevant federal agencies in the field of education in science and technology. These proposals are all guided by a single set of priorities, which attach the highest value to pre-college education, and particularly to teacher preparation and enhancement. PCAST is entirely comfortable with these priorities, and commends the FCCSET committee on their selection.

In the coming months PCAST will build upon the FCCSET work in this field by focusing attention on the education of those extraordinary members of the population who have the capacity to reach the highest levels of achievement in science and engineering, with particular attention to those who teach such key contributors from childhood through doctoral studies. Unless our most talented citizens achieve their full potential in science and technology, the desired improvements in mass education in these fields will not be sufficient to assure the competitiveness of our nation in the global economy.

March 8, 1991

MEMORANDUM FOR PETER LIKINS
President's Council of Advisors
on Science and Technology

From: D. Allan Bromley
Chairman, PCAST

Subject: Terms of Reference for the PCAST Panel on Education and Human
Resources

You are requested to chair a panel on Education and Human Resources.

The purpose of this panel is to enable PCAST to advise the President on issues related to education and human resources in the fields of science, technology, engineering and mathematics.

The agenda for the panel includes two kinds of tasks: (1) Monitoring the work of others in the field, including the corresponding committee of FCCSET, and providing an extragovernmental perspective on the work of governmental agencies and interagency groups; and (2) Undertaking specific studies of potential interest to the President.

An example of the second kind is the PCAST evaluation of strategies for meeting the National Goals for Education, as reported orally to the President in December of 1990.

The specific study next on the agenda focuses on the education of those extraordinary members of the population who have the capacity to reach the highest levels of achievement in science and engineering, with particular attention to those who teach such key contributors from childhood through doctoral studies. Unless our most talented citizens achieve their full potential in science and technology, the desired improvements in mass education in these fields will not be sufficient to assure the competitiveness of our nation in the global economy.

Questions to be addressed include the following:

(1) Is the education in science and mathematics most appropriate in childhood for students of high potential different in any way from that appropriate for other students? If so, can such high potential students be identified in childhood, even in the presence of such obscuring factors as poverty or deficiencies in family or community support?

(2) What is the influence of early teachers and teacher behavior on the development of children of high potential in science and mathematics? How can teachers discover and develop such talents, particularly among girls and children of minority groups under-represented in these fields?

(3) What are the effects of accelerated or enriched study on the development of high potential students in science and mathematics? What are the roles of parents, elementary and secondary school teachers, and adult mentors such as college professors, scientists and engineers?

(4) Are undergraduate enrollments in engineering and the sciences an appropriate reflection of society's needs and the talents of the population? In particular, are these enrollments appropriate for women and under-represented minorities? If in any case inappropriate, can enrollments be altered? How? Can teachers make a difference?

(5) Are graduate student enrollments in engineering and the sciences an appropriate reflection of society's needs and the talents of the population? Is the participation of U.S. citizens and permanent residents appropriate? If in any case inappropriate, can graduate enrollments be altered? How? Can teachers make a difference?

(6) Are Ph.D. recipients likely to be available in sufficient numbers and quality to meet the demands for faculty in engineering and the sciences in the decade of the nineties? Is the current reliance on foreign-born faculty appropriate? Are women and currently under-represented minorities likely to be available in adequate numbers and quality to meet any special requirements in this area? If any of these questions suggests a negative response, what strategies can be devised to correct the anticipated deficiencies? Can teachers make a difference?

Additional questions will arise in the course of the study.

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120460

FROM: LIKINS, PETER

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 02/18/91

SUBJECT: REPORT OF THE FCCSET COMMITTEE ON EDUCATION AND
HUMAN RESOURCES

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Thomas Welch
Thomas Ratchford
Maryanne Bach

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 02/19/91

FILE: PCAST

91204680

Lehigh University



Peter Likins, President

*Alumni Memorial Building 27
Bethlehem, Pennsylvania 18015
telephone (215) 758-3155*

RECEIVED

91 FEB 19 P 1:08

February 18, 1991

OFFICE OF THE
DIRECTOR

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
Executive Office of the President
Office of Science and Technology Policy
Old Executive Office Building, Room 360
Washington, DC 20506

Dear Allan,

In response to my assignment in preparation for the meeting of 7 March, I drafted the attached memo. If this seems appropriate, you may wish to distribute it to my colleagues in advance of our meeting.

Sincerely,

PL/lg

Attachment



*Alumni Memorial Building 27
Bethlehem, Pennsylvania 18015
telephone (215) 758-3155*

February 18, 1991

MEMORANDUM

TO: PCAST
FROM: Peter Likins
SUBJECT: Report of the FCCSET Committee on Education
and Human Resources

Preface

The purpose of this memorandum is to facilitate discussion of the subject report at our meeting on 7 March, and to prepare for the next stage of our own work in this field.

There are so many reports about education available today that we grow weary just carrying them around. But this report is different. This report describes actions taken in constructing the President's Budget, and provides a rather comprehensive and well integrated view of the collective activities of all federal agencies in education for Science, Technology, Engineering and Mathematics (henceforth STEM in this memo).

Summary

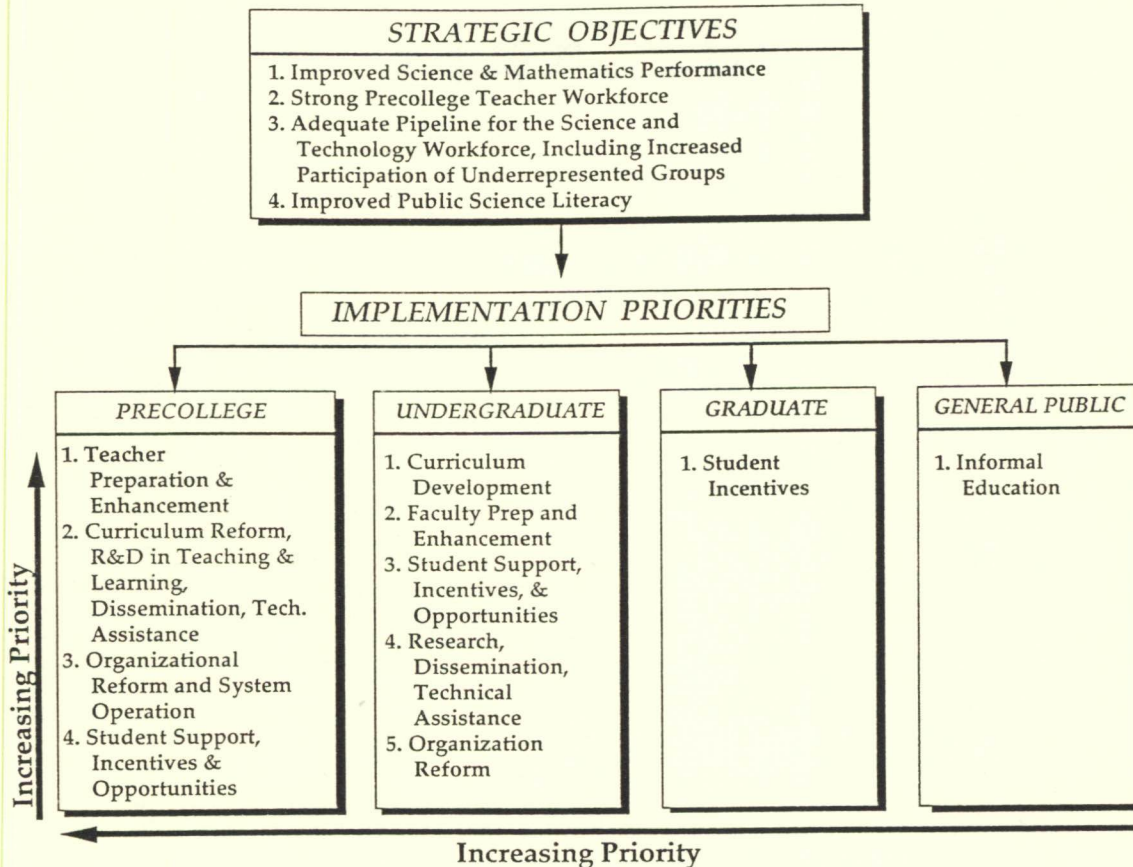
Educational priorities for the U.S. population focus firstly on our youth, and decline with age:

- | | | |
|-----|--------------------|-------------------------|
| (1) | Precollege youth | (\$660 million, up 28%) |
| (2) | Undergraduates | (\$477 million, up 14%) |
| (3) | Graduate students | (\$803 million, up 2%) |
| (4) | The general public | (not differentiated) |

(Budget numbers reported here are those defined by FCCSET's Committee as "category 1" funds, which are those which Congress appropriates expressly for STEM education. Funds supporting education generally, or supporting research with collateral benefit to education, are excluded. Percentage increases claimed by FCCSET are accepted at face value.)

Strategic Objectives and Implementation Priorities are most succinctly defined by Figure 4 of the report, reproduced below.

Figure 4
CEHR FY 1992 Strategic Objectives and Priorities



In anticipation of consideration of an appropriate role for PCAST, note the emphasis on precollege teachers, college faculty, and incentives for students to pursue an education in STEM fields to the highest level within their capacities. In the text this theme is further developed, with special reference to women and under-represented minorities.

This distribution of federal budget dollars among agencies is broken down by these priorities in Figure 8 of the report, reproduced on the following page. The FCCSET report provides a detailed description of each element in the Figure 8 matrix.

Figure 8
FY 1992 Budget Matrix

CEHR FY 1992 BUDGET BY AGENCY AND MAJOR PROGRAM AREA

MAJOR CATEGORIES	Total Request	NSF	ED	DOE	DOD	DOC	NASA	DOI	HHS	EPA	USDA
GRAND TOTAL	1940.79	456.09	329.90	74.43	415.85	7.60	67.15	41.71	513.09	13.37	21.60
Precollege Total	660.62	253.05	313.80	21.65	4.97	0.55	14.10	21.96	21.77	8.07	0.70
Teacher Preparation/Enhancement	358.53	97.30	239.00	6.20	0.63	0.25	5.57	2.06	5.15	2.37	0.00
Curriculum Development*	137.27	84.75	34.80	1.90	0.00	0.09	5.60	3.60	4.52	2.01	0.00
Comprehensive/Organizational Reform	57.57	47.55	0.00	6.40	0.00	0.00	0.28	0.50	0.60	2.04	0.20
Student Incentives	47.75	11.00	0.00	5.75	4.34	0.21	0.55	14.32	10.87	0.21	0.50
Other	59.50	12.45	40.00	1.40	0.00	0.00	2.10	1.49	0.62	1.44	0.00
Undergraduate Total	477.38	132.32	16.10	30.18	176.08	1.90	25.03	8.84	70.14	4.30	12.50
Faculty Preparation/Enhancement	42.36	27.55	0.00	2.40	0.00	0.00	9.65	1.84	0.02	0.90	0.00
Curriculum Development*	123.66	63.66	6.10	11.60	38.90	0.20	1.81	1.12	0.19	0.10	0.00
Comprehensive	47.65	14.95	0.00	3.85	6.80	0.00	1.68	0.53	6.34	1.00	12.50
Student Incentives	230.27	24.81	10.00	12.33	100.50	1.70	11.73	4.30	62.59	2.30	0.00
Other	33.44	1.35	0.00	0.00	29.88	0.00	0.16	1.05	1.00	0.00	0.00
Graduate Total	802.79	70.72	0.00	22.60	234.80	5.15	28.02	10.92	421.17	1.00	8.40
Predoctoral Fellowships	100.53	51.52	0.00	10.04	16.70	0.85	13.80	0.03	6.79	0.80	0.00
Predoctoral Traineeships	153.85	4.40	0.00	0.00	3.90	0.00	4.70	10.41	126.44	0.00	4.00
Postdoctoral Fellowships	100.08	9.85	0.00	10.05	10.50	3.35	9.10	0.48	52.15	0.20	4.40
Postdoctoral Traineeships	157.57	4.00	0.00	0.00	0.00	0.00	0.00	0.00	153.57	0.00	0.00
Other*	290.75	0.95	0.00	2.51	203.70	0.95	0.42	0.00	82.22	0.00	0.00

* includes program assessment and evaluation

dollars in millions

(see p. 58 (military & civilian personnel support))

FCCSET's Committee on Education and Human Resources proposes in the year ahead to review all federal programs in mathematics and science education and broaden the scope of the Committee's efforts to include technical training and scientific literacy issues.

The PCAST Role

When we reflect on the need to draw our most capable young people into STEM studies, and to strengthen the related capabilities of the current workforce, we are moved to ask "And who shall lead the way?" We need qualified teachers at every level to meet this challenge, and there seems to be a current shortage that threatens to grow significantly.

The FCCSET Committee has emphasized teachers, especially at the precollege level, but the budgetary priorities leave little to offer at the most advanced end of the spectrum. Perhaps PCAST should attempt a more comprehensive and integrated analysis of the STEM teaching challenge, hoping to focus priorities for the future.

A handwritten signature in dark ink, appearing to read "Peter H. Hinkle". The signature is written in a cursive style with a large, looped initial "P".

PL/lg

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120452

FROM: LIKINS, PETER

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 02/13/91

SUBJECT: LETTER TO PRESIDENT BUSH CONCERNING HIS INVITATION
TO THE COMMENCEMENT AT LEHIGH UNIVERSITY.

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 02/20/91

FILE: PCAST

Lehigh University



Peter Likins, President

Alumni Memorial Building 27
Bethlehem, Pennsylvania 18015
telephone (215) 758-3155

RECEIVED

91 FEB 19 AM 11:27

February 13, 1991
(Dictated February 8, 1991)

DIRECTOR

The Honorable George Bush
President of the United States
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

Dear Mr. President,

Our time together at the PCAST meeting today was brief ... 15 minutes stretching into 30 ... and I didn't feel that I could take the precious time to offer the words of encouragement that are in my heart. I decided waiting here in the airport a few hours later to dictate this letter instead.

It is clear to us all that you have approached this conflict over Kuwait with strength and resolve, but still with a very human sensitivity to the criticisms that come inevitably to a leader who steps boldly into conflict, for whatever cause. I know that you care particularly about the attitudes and feelings of young Americans, and might wish to know how this situation appears from the perspective of a university president.

I often take an early morning run on the hilly campus of Lehigh University. With my home in the middle of the campus this is convenient, of course, but I run here for another reason: I want to touch all the bases and maintain the feel of the campus in my bones.

Last Tuesday morning about 6:30 I ran my little two mile circuit, and took note of the giant American flags flying from most of the student residences I passed by. Many trees and lampposts were adorned with yellow ribbons, and flags of all sizes hung from house windows. I found these symbols deeply reassuring, as I knew you would as well.

When I ran by the library grounds, I found there a half dozen students awakening in pup tents from their overnight vigil, with banners on the tents calling for peace. I stopped by to say hello, and was met with the most friendly greeting. These young people know where I stand in support of my government, but they conveyed no anger ... only appreciation of my visit. (I was dressed in old sweats with a headband around the hood, and they were in similar attire, perhaps diminishing the differences

February 13, 1991

between us.) These students know that they are the lonely few on the Lehigh campus, and they register their protest respectfully and in accordance with our rules. Somehow I found their presence reassuring too, as I believe you would as well.

On 16 January at 4:00 pm we held an open meeting on campus, assembling a few professors with relevant expertise and the retired colonel who directs our Alumni Association to join me in open discussion with students and faculty of all perspectives in the audience. There were differences of opinion expressed, but there was genuine harmony in that room. I took the liberty of saying a few words about your perspective on this conflict as I see it, knowing that I am addressing a campus which is supportive of your position, while respectful of dissenting views.

I can't speak for the mood on every campus in America, and I must acknowledge that Lehigh is by reputation rather more conservative than most, but I am persuaded that there is a great deal of support for the principles that guide you in the actions you have taken in the Middle East. As we discussed that conflict in the PCAST meeting today, it occurred to me that you would be encouraged by what you would see on our campus, and you deserve to know that.

Although it was not my purpose in writing this letter to call your attention to the commencement season that lies ahead, I would be remiss in my duties to Lehigh if I failed to remind you that we remain on the list of 40 schools whose invitations to commencement are still being considered for your calendar. Our date is Sunday, the 2nd of June, and we are less than an hour's flight from DC. We will be dedicating Iacocca Hall on our new Mountaintop Campus about that time, and it would be fun to combine those events. I can't imagine any college community that could give you a more rousing welcome.

Warm regards,

Peter Hinkins

Allan - Please tell the President of your own honorary degree recognition at this same commencement, and urge him to join us. Thanks Pete

PL/lg

cc: D. Allan Bromley
Lee Iacocca

THE WHITE HOUSE

WASHINGTON

March 4, 1991

Dear Peter:

Many thanks for sending me a copy of your February 13 letter to the President. I have written him a memorandum reinforcing your invitation with my recommendation that he accept and that he give a major talk on engineering and technology on the occasion. Whether it will be possible for him to accept or not remains, of course, in the hands of the Gods at this point, but I thought that your letter was one that he would very much appreciate. I was able to reinforce your comments Lehigh students on the basis of a recent visit back to Yale where I was rather surprised at the overwhelming support for the President and for Desert Storm among students who, in the past, have not been notably supportive of Republican presidents.

I am very much looking forward to joining you on June 2nd in Bethlehem, and, of course, to seeing you on March 7 at the next PCAST meeting. I have sent off to you under separate cover another photograph to add to your collection from the last PCAST gathering.

With warmest best wishes,

Sincerely yours,



D. Allan Bromley
Assistant to the President
for
Science and Technology

Professor Peter Likins
President
Lehigh University
Alumni Memorial Building 27
Bethlehem, Pennsylvania 18015

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120284

ORIGINATOR: 02

STATUS C

DIRECTORATE STATUS

FROM: NATHANS, DANIEL

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/29/91

SUBJECT: SUGGESTED CANDIDATES FOR PCAST MEMBERSHIP; RONALD
HOFFMAN AND JOSEPH MARTIN.

DIRECTORATE
ASSIGNED:

STAFF
ASSIGNED: PCAST

ACTION
REQUIRED: AS APPROPRIATE

STAFF
ACTION:

SENDER'S DUE DATE:

OSTP DUE DATE:
DATE COMPLETED:

STAFF DUE DATE
DATE COMPLETED/DEPT:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:
PHONE:

EXT:

REMARKS:

OSTP RECEIVED: 02/07/91
DEPT RECEIVED:

FILE: PCAST

9120284

THE JOHNS HOPKINS UNIVERSITY
SCHOOL OF MEDICINE

RECEIVED

DEPARTMENT OF
MOLECULAR BIOLOGY AND GENETICS



91 FEB 7 A 9:48

725 N. WOLFE STREET
BALTIMORE, MARYLAND 21205-2185

OFFICE OF THE
DIRECTOR

January 29, 1991

Dr. D. Allan Bromley
Assistant to the President for
Science and Technology
The White House
Washington, D. C. 20500

Dear Allan:

I suggest you consider as candidates for PCAST membership Roald Hoffmann, Nobel Laureate in chemistry and Newman Professor of Physical Science at Cornell University; and Joseph Martin, neurologist/neuroscientist and Dean of the Medical School at the University of California/San Francisco Medical Center. Biographical sketches are enclosed. (A different who's who indicates that Martin is a U.S. citizen.) I don't know either Hoffmann or Martin personally, but I have heard very good things about both of them. Hoffmann would add a physical scientist to replace Walter, and Martin would bring both neuroscience and medical viewpoints.

Sincerely,

Daniel Nathans

DN:jml

HOFFMANN, ROALD, chemist, educator; b. Zloczow, Poland, July 18, 1937; came to U.S., 1949, naturalized, 1955; s. Hillel and Clara (Rosen) Safran (stepson Paul Hoffmann); m. Eva Börjesson, Apr. 30, 1960; children: Hillel Jan, Ingrid Helena. BA, Columbia U., 1958; MA, Harvard U., 1960; Ph.D., 1962; D. Tech. (hon.), Royal Inst. Tech., Stockholm, 1977; D.Sc. (hon.), Yale U., 1980, Columbia U., 1982, Hartford U., 1982, CUNY, 1983, U. P.R., 1983, U. Uruguay, 1984, U. La Plata, SUNY, Binghamton, 1985, Colgate U., Lehigh U., 1989, Carleton Coll., 1989, Ben Gurion Coll., 1989, U. of the Negev, 1989, U. Md., 1990. Jr. fellow Soc. Fellows Harvard, 1962-65; assoc. prof. Cornell U., Ithaca, N.Y., 1965-68; prof. Cornell U., 1968-74, John A. Newman prof. phys. sci., 1974-; U. Md., 1990. Author: (with R.B. Woodward) Conservation of Orbital Symmetry, 1970. Solids and Surfaces, 1988; author: (poetry) The Matamict State, 1987, Gaps and Verges, 1990. Recipient award in pure chemistry Am. Chem. Soc., 1969, Arthur C. Cope award, 1973, Fresenius award Phi Lambda Upsilon, 1969, Harrison Howe award Rochester sect. Am. Chem. Soc., 1970; ann. award Internat. Acad. Quantum Molecular Scis., 1970, Pauling award, 1974, Nobel prize in chemistry, 1981, inorganic chemistry award; Am. Chem. Soc., 1982, Nat. Medal of sci., 1983, Chem. Scis. award Nat. Acad. Sci., 1986, Priestley medal, 1990. Mem. NAS (award in chem. scis. 1986), Am. Acad. Arts and Scis., Internat. Acad. Quantum Molecular Scis., Royal Soc. (Ign.), Indian Nat. Sci. Acad., Royal Swedish Acad. Scis., Finnish Acad. Acad. Scis. USSR

MARTIN, JOSEPH BOYD, neurologist, educator; b. Bassano, Alta., Can., Oct. 20, 1938; s. Joseph Bruce and Ruth Elizabeth (Ramer) M.; m. Rachel Ann Wenger, June 18, 1960; children: Bradley, Melanie, Douglas, Neil. B.Sc., Eastern Mennonite Coll., Harrisonburg, Va., 1959; M.D., U. Alta., 1962; Ph.D., U. Rochester, N.Y., 1970; M.A. (hon.), Harvard U., 1978. Intern Univ. Hosp., Edmonton, Alta., 1962-64; resident in neurology

ase-Western Res. U. Hosps., 1964-67; mem. faculty McGill U. Faculty Medicine, Montreal, Que., Can., 1970-78; prof. medicine and neurology, neurologist-in-chief Montreal Neurol. Inst., 1976-78; chmn. dept. neurology Mass. Gen. Hosp., Boston, also Dorn prof. neurology Harvard U. Med. Sch., 1978-89; dean Sch. Medicine U. Calif., San Francisco, 1989-; mem. med. div. bd. Gairdner Found., Toronto, 1978-83; adv. council neurol. disorders program Nat. Inst. Neurol., Communicative Disorders and Stroke, 1979-82; co-author: Clinical Neuroendocrinology, 1977, The Hypothalamus, 1978, Clinical Neuroendocrinology: A Pathophysiological Approach, 1979, Neurosecretion and Brain Peptides: Implications for Brain Functions and Neurological Disease, 1981, Brain Peptides, 1983; editor Harrison's Principles of Internal Medicine, Clin. Neuroendocrinology 2d edit., 1987. Recipient Moshier Meml. gold medal U. Alta. Faculty Medicine, 1962, John V. Scott gold med. award, 1962; Med. Research Council Can. scholar, 1970-5. Mem. Internat. Soc. Neuroendocrinology (council 1980-), Am. Neurol. Assn., Am. Physiol. Soc. (Bowditch lectr. 1978), Royal Coll. Phys. and Surg. an., Endocrine Soc., Soc. Neurosci., Am. Soc. Clin. Phys. and Surg. m. Physicians, Am. Acad. Arts and Scis., Inst. of Medicine, Nat. Acad. is. Office: U. Calif. Sch. Medicine 513 Parnassus Ave Ste 224 San Francisco A 94143-0410

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9120224

FROM: EDELSON, BURTON I.

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/31/90

SUBJECT: REQUEST TO VOLUNTEER IF A NATIONAL SECURITY SCIENCE
AND TECHNOLOGY PANEL IS FORMED

ASSIGNED TO: Thomas Welch

ACTION REQUIRED: AS NECESSARY

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: Dr. Phillips

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:



DATE RECEIVED: 01/19/91

FILE: PCAST
TECHNOLOGY

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9120224

FROM: EDELSON, BURTON I.

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/31/90

SUBJECT: REQUEST TO VOLUNTEER IF A NATIONAL SECURITY SCIENCE
AND TECHNOLOGY PANEL IS FORMED

ASSIGNED TO: D. Allan Bromley

TW

ACTION REQUIRED: AS APPROPRIATE

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: Dr. Phillips

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 01/19/91

FILE: TECHNOLOGY

The Johns Hopkins Foreign Policy Institute
School of Advanced International Studies

December 31, 1990

Dr. D. Allan Bromley
Science Advisor to the President
The White House
Washington, DC 20500

Dear Allan:

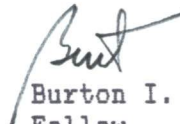
You'll remember me, I hope, from my campaign as an alumnus to strengthen science and engineering at Yale. Now, you're engaged in a much larger effort, to strength^{en} the technological capabilities of this country. I'd like to help.

If a national security science and technology panel is formed, I volunteer to be a member. With a strong background in the military service, civil government and industry, I think I could be helpful.

I'm enclosing a short resume.

Best regards.

Sincerely,


Burton I. Edelson
Fellow

[F:117]

Burton I. Edelson

Burton I. Edelson is a Fellow of the Foreign Policy Institute of Johns Hopkins University and Research Professor of Electrical Engineering and Computer Science at George Washington University. He is also active as a technical and management consultant to several government agencies and industrial firms.

From 1982 to 1987, he was Associate Administrator for Space Science and Applications of the National Aeronautics and Space Administration. In that position, he was responsible for the direction of all NASA programs in space astronomy and astrophysics, planetary exploration, earth sciences, biomedical and microgravity sciences; for satellites and earth observation satellites; and for institutional management of the Goddard Space Flight Center and the Jet Propulsion Laboratory.

From 1968 to 1982, Dr. Edelson held executive positions at the Communications Satellite Corporation, including Director of COMSAT Laboratories, Vice President for Systems and Engineering, and Senior Vice President.

Previously, he served as a naval officer in research and engineering positions in the Bureau of Ships, the Office of Naval Research, and the National Space Council.

Dr. Edelson received his BS degree from the U.S. Naval Academy in 1947 and his PhD in Metallurgy from Yale University in 1960. He is a Fellow of the American Institute of Aeronautics and Astronautics (AIAA), a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), and a Registered Professional Engineer. He has been awarded the Navy Legion of Merit, the NASA Exceptional Service Medal, and the Yale University Wilbur Cross Medal.

October 1990

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9120221

FROM: NICHOLS, RODNEY W.

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/31/91

SUBJECT: REQUEST BY RODNEY NICHOLS TO FIND AN ADVISORY ROLE
FOR PROFESSOR NORTON ZINDER.

ASSIGNED TO: D. Allan Bromley

ACTION REQUIRED: AS NECESSARY

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: Thomas Welch

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 01/31/91

FILE: PCAST

9120221

Carnegie Corporation of New York

437 Madison Avenue, New York, N.Y. 10022 • (212) 371-3200 • Telex: US166776 • Fax: (212) 754-4073

January 30, 1991

Dr. D. Allan Bromley
Assistant to the President for Science
and Technology
Old Executive Office Building
Room 358
17th Street and Pennsylvania Avenue, N.W.
Washington, D.C. 20506

Dear Allan:

I enclose a biographical sketch on Professor Norton Zinder of The Rockefeller University, who, as I have mentioned to you, is a veteran in a number of the Washington science policy circles. He is just rotating off the Council of the Academy and happened to mention to me at a holiday party that he would love to get involved in another major D.C. enterprise.

As you probably know and as you will see from this biographical sketch, Norton is surely one of the most distinguished molecular biologists of his generation. He has an unusual capacity for intensity and honesty. He was one of the very best and supportive friends I had at The Rockefeller. (Among other things, I'm sure you realize that any senior administrative officer needs a few people on the faculty whom he can absolutely trust to tell him he needs more information.) Norton has been the Chairman of the Advisory Committee to the Human Genome Project, working with his longtime friend Jim Watson. He also has worked on some highly classified projects at the Academy on the destruction of chemical weapons. Perhaps you may find an advisory role for him that would be helpful to you and your colleagues.

Best personal regards.

Sincerely,



Rodney W. Nichols
Scholar-in-Residence

Enclosure

OFFICE OF THE
DIRECTOR

91 JAN 31 10 35 AM

RECEIVED

Public Affairs Office
Phone: (212) 570-8967
Fax: (212) 570-7876

BIOGRAPHY OF NORTON D. ZINDER

Norton D. Zinder, a John D. Rockefeller Jr. Professor of The Rockefeller University, is one of the pioneers of modern molecular genetics and microbiology whose research has yielded basic principles concerning how genes regulate biological activity. He has also served in major advisory posts for the government and the scientific community. He was elected to membership in the National Academy of Sciences in 1969.

Dr. Zinder's research centers on bacteria and bacteriophages, which are viruses that infect bacteria. Early in his career, he discovered that bacteriophages can act as carriers of genetic material from one bacterium to another. Exploitation of this process, called transduction, has been of major importance in the identification of specific bacterial genes and their functions and was the natural model in the development of recombinant DNA technology.

The discovery of transduction resulted from experiments conducted when he was a graduate student at the University of Wisconsin, in collaboration with Joshua Lederberg (later president of The Rockefeller University).

These experiments and the resulting methodology made transduction a powerful tool for the study of bacterial

genetics and for such applied problems as antibiotic resistance and bacterial classification. Further research enabled Dr. Zinder and his colleagues to develop techniques for mating Salmonella bacteria, which allow for the specific differentiation of donor (male) and recipient (female) bacteria.

In 1960 Dr. Zinder and Timothy Loeb, then a graduate student in his laboratory, discovered seven new bacterial viruses specific for E. coli males. The viruses, named f1 through f7 (f for fertility factor), proved to be unique. F1 was found to contain a single strand of DNA as its genetic material, and f2 through f7 proved to be the first known RNA-containing bacteriophages.

The discovery of the RNA phages had great importance in studies of fundamental genetic processes because their unusually small size -- smaller than the polio virus and with half its genetic material -- made it possible to identify each submolecule of their genetic code.

Additional investigations of the RNA bacteriophages led Dr. Zinder and his laboratory group to the first demonstration, in 1962, that virus replication in the RNA phage is not dependent on DNA; that in fact, the RNA phage acts both as its own genetic material and as a template for directing protein synthesis. This research provided further evidence that ribonucleic acid carries the blueprint for the manufacture of protein. Also, with the use of phage RNA,

many details of protein biosynthesis, including its initiation and termination, were worked out.

Dr. Zinder's recent research on molecular and physiological genetics emphasizes genetic recombination of the bacteriophage f1 and the physical mapping of its genome (its genetic package) by means of restriction enzymes (agents that cleave genetic material) as well as nucleotide sequence analyses of messenger RNA from both prokaryotes and eukaryotes. (Prokaryotes are organisms, like bacteria, that do not have true nuclei.) These studies are designed to explore in detail the mechanism of gene action and control in a small, finite organism. In addition, they provide tools for the detailed study of the mechanism of action of these sequences and structure-specific enzymes, currently in wide use.

Dr. Zinder edited the book RNA Phages (Cold Spring Harbor Press, 1975), and serves as an associate editor of Virology and section editor of Intervirology.

Dr. Zinder's participation as an advisor on science and public policy began in 1973, when he was asked by the National Cancer Board to be chairman of a committee to review the Special Virus Cancer Program of the National Cancer Institute. The Committee's findings, known as the Zinder Report, resulted in a major reorganization of the program. He was one of the original members of the Committee on Recombinant DNA Molecules of the National Research Council of the National Academy of Sciences in 1974-75. From 1982 to

1984 he chaired a committee of the National Academy of Sciences and Nuclear Regulatory Commission which made recommendations on the technical means for disposal of the large U.S. stockpile of chemical weapons. He is currently chairman of the Academy's oversight committee for carrying out the weapons-disposal project.

He has served on other boards and panels of the National Academy of Sciences and in 1988 was elected to a three-year term on the Academy's ruling council. He was formerly chairman of the Committee on Industry-University Relationships, COGENE, and was a trustee of the Cold Spring Harbor Laboratories. He is currently chairman of the advisory board of the human genome project.

Norton David Zinder was born in New York City on November 7, 1928. He received an A.B. degree from Columbia University in 1947 and a Ph.D. degree from the University of Wisconsin in 1952, the year he joined The Rockefeller University, then known as The Rockefeller Institute for Medical Research, as an assistant. He was appointed associate in 1956, associate professor in 1958, professor in 1964, and John D. Rockefeller Jr. Professor in 1977.

He was an American Cancer Society Scholar from 1956 to 1958. He has received many honors and awards. He was the recipient of the Eli Lilly Award in Microbiology in 1962, and the National Academy of Sciences' United States Steel Foundation Award in molecular biology in 1966 "for the discovery of RNA phages and for the analysis of the mech-

anisms of their replication." In 1969 he was awarded the Medal of Excellence by Columbia University. In 1982, he was a recipient of the American Association for the Advancement of Science's award in Scientific Freedom and Responsibility for his leadership during the public debate over the use of recombinant DNA technology.

He is a member of the American Academy of Arts and Sciences, the American Society of Biological Chemists, the Genetics Society of America, the American Society of Microbiology, the American Association for the Advancement of Science, and Sigma Xi.

He and his wife, the former Marilyn Estricher, reside in New York City. They have two sons, Stephen and Michael, and three grandchildren, Daniel, Benjamin, and John.

"CORRESPONDENCE TRACKING"

TYPE: ACTION

DOCUMENT NUMBER: 9120221

FROM: NICHOLS, RODNEY W.

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/31/91

SUBJECT: REQUEST BY RODNEY NICHOLS TO FIND AN ADVISORY ROLE
FOR PROFESSOR NORTON ZINDER.

ASSIGNED TO: Thomas Welch

ACTION REQUIRED: AS NECESSARY

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 01/31/91

FILE: PCAST

"CORRESPONDENCE TRACKING"

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ACTION REQUIRED: AS NECESSARY

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED: -----

COPIES TO: Thomas Welch

*****1

WHITE

REMAR

DATE R

Don:
Don't buy duplicate
Don't have? Is a Person
candidate? Don

MS - sign - keep
Real - not
JB - some
Do - see

"CORRESPONDENCE TRACKING"

TYPE: INFORMATION

DOCUMENT NUMBER: 9120262

FROM: SLIGER, BERNARD F.

TO: DR. BROMLEY

DATE OF
CORRESPONDENCE: 01/11/91

SUBJECT: RECOMMENDATION OF POTENTIAL CANDIDATES FOR THE
PRESIDENT'S ADVISORY COUNCIL

ASSIGNED TO:

ACTION REQUIRED:

SENDER'S DUE DATE:

OSTP DUE DATE:

DATE COMPLETED:

COPIES TO: D. Allan Bromley
Thomas Welch

WHITE HOUSE TRACKING #:

CONTACT PERSON:

REMARKS:

DATE RECEIVED: 01/19/91

FILE: PCAST



**Florida State
UNIVERSITY**

Office of the President
211 Westcott Building
Tallahassee, Florida 32306-1037
(904) 644-1085

9/20262

January 11, 1991

Dr. D. Allan Bromley
Old Executive Office Building
Room 360
17th and Penn., NW
Washington, D. C. 20506

Dear Dr. Bromley:

In a recent letter, Jon Veigel suggested that I recommend to you some members of our faculty who would be appropriate candidates for you to suggest as new members of the Presidents Advisory Council. I am pleased to suggest the following:

- Professor Michael Kasha, Institute of Molecular Biophysics
- Professor Tiruvalam N. Krishnamurti, Meteorology
- Professor James O'Brien, Meteorology
- Professor Donald Robson, Physics

I will be happy to supply further information when it is appropriate to do so.

Thank you for your time and consideration.

Sincerely,

Bernard F. Sliger
President

BFS:cb

cc: Dr. Donald Robson
Jon Veigel

"CORRESPONDENCE TRACKING"

TYPE: ACTION DOCUMENT NUMBER: 9121902
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

FROM: MURRIN, Thomas J.: DUQUESNE UNIVERSITY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 01/04/91

SUBJECT: RE: A RELATIONSHIP WITH PCAST.

DIRECTORATE STAFF
ASSIGNED: D. Allan Bromley ASSIGNED:

ACTION STAFF
REQUIRED: AS NECESSARY ACTION:

SENDER'S DUE DATE:
OSTP DUE DATE: 02/12/91 STAFF DUE DATE
DATE COMPLETED: 02/12/91 DATE COMPLETED/DEPT:

COPIES TO:

WHITE HOUSE TRACKING #: CONTACT PERSON:
PHONE: EXT:
REMARKS:

OSTP RECEIVED: 01/06/91 FILE: PCAST
DEPT RECEIVED:

THE WHITE HOUSE

WASHINGTON

February 12, 1991

Dear Tom:

You are very much missed here in Washington and I look forward to getting you back here in connection with PCAST activities. This takes longer than you could imagine because, for obvious reasons, I cannot move forward until such time as both Bernadine Healy and Walter Massey have been officially nominated. Walter now has been just nominated and had his confirmation hearings but will not be confirmed for a few weeks. While Bernadine, for reasons that absolutely escape all human understanding, is still being researched by the FBI and, although the President has sent up her intend to nominate, the actual nomination will apparently be a few weeks yet. It has been an unbelievable delay.

I have had several profitable talks with Bob Mosbacher and have met Rock Schnabel at a luncheon with Bob. He seems like a very fine individual but has no technical experience whatsoever.

Unfortunately, I have not changed my opinion concerning Bob White, but clearly we will work closely with him to try to build on the common cause that obviously exists between OSTP and Commerce. Now that Deborah is back at work fulltime, the situation frequently becomes more cloudy and more Byzantine than while she was off being a mother.

I hope that you are really enjoying the academic world and suspect very much that you are. I shall look forward to our paths crossing soon and if your Commerce consulting activities bring you to Washington in the near future, and if you have a luncheon free, please do let me know.

With warmest best wishes,

Sincerely yours,



D. Allan Bromley
Assistant to the President
for
Science and Technology

Mr. Thomas J. Murrin, Dean
School of Business and Administration
Duquesne University
408 Rockwell Hall
Pittsburgh, Pennsylvania 15281-0104



DUQUESNE UNIVERSITY

408 ROCKWELL HALL • PITTSBURGH, PA • 15282-0104

SCHOOL OF BUSINESS
AND ADMINISTRATION
TELEPHONE (412) 434-5156
FAX (412) 642-9106

January 4, 1991

Dr. Allan Bromley
6716 Tulip Hill Terrace
Bethesda, Maryland 20816

Dear Allan:

Many thanks for your most welcome and thoughtful letter of December 17!

You have become one of my very few D. C. Heroes --- and you are a real National Resource! So I pray that you stay healthy- and - happy --- and successful - and - satisfied!

Bob Mosbacher is pleased that I can continue as an occasional (formal, un-paid) Consultant to Commerce---and Dick Truly wants me to continue on his NASA Advisory Council. If I could have a relationship with PCAST, this would be GREAT (and Bob Mosbacher agrees)!

In the interim, Happy New Year!

Good Luck!

God Bless!

Most Sincerely,

Thomas J. Murrin
Dean