F.A.S. PUBLIC INTEREST REPORT

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SPECIAL ISSUE:

CIVIL SERVICE REFORM

October, 1978

SUNSET LAW ON FEDERAL EMPLOYEES

In reviewing the progress of the civil service reform bill, we were struck with two facts. In the first place, low and middle level federal employees are almost never dismissed, but, instead, bypassed, or transferred into pointless jobs or otherwise tolerated. In the second place, the much vaunted constancy of federal employment is a myth that conveniently ignores rapid growth in the numbers of contractual employees. (See page 3.)

Indeed, for all practical purposes, federal employees have tenure. For an association of scientists like our own, largely academic, the unfireability of federal employees raises disturbing questions. At least, in an academic situation, tenure is provided after a careful review of the qualifications of the applicant — a review normally requiring about six years. By contrast, most federal employees reach a situation of comparable invulnerability after three months or a year — or at most three years.

Also tenure in an academic situation is provided to fairly senior participants in the academic process, not to all employees of the university, but to the senior ranks of the faculty. By contrast, more than 2,000,000 federal employees at every level now have tenure.

Tenure in an academic situation is often justified on grounds of academic freedom; society has often found it valuable to have a sector of intellectuals free from job insecurity so as to speak its mind. But, in the federal situation, we find a societal preference for Hatch Acts in which the tenured employee is, for reasons connected with his job, encouraged not to participate fully in the political debate. What then is the justification for tenure for federal employees? Job security in the federal sector is actually greater than in a university. A university can still fire faculty for economic reasons. But comparably high-ranking bureaucrats could utilize "bumping" rights so as to survive any conceivable federal "Reduction in Force" (R.I.F.). One designer of the President's Civil Service Reform Act advised FAS complacently that he had started as a GS-3 clerk-typist and could "retreat," so successfully that the firing of 2,000,000 people would not prevent his continuing federal employment.

This job security is excessive. The President's reform of the civil service does little to change it. The fundamental problem is the fact that most persons cannot be dismissed without the filing of charges.

True that the civil service reforms will simplify the filing of charges; the overcentralized control of the civil service commission will be broken so that the question of dismissal can be addressed inside the agency itself. But the very fact that charges must still be filed means that persons can only be dismissed for gross violations of the work ethic, and only when the manager is ready to commit himself to timeconsuming and abrasive processes.

Defenders of the system say that, in America, a social contract exists in which, increasingly, the right to keep one's position is some kind of human right. They point to the job protection clauses of unions, to the growing number of state and local government employees where the same rights normally exist as in the federal bureaucracy. And, indeed, there are a growing number of Americans who have a vested interest in strengthening this notion. As a direct consequence of this political force, no serious attention —Continued on page 2

THROWING PUNCHES IS SAFER THAN BLOWING WHISTLES

On September 22, as this was going to press, the Director of the Department of Transportation's office of civil rights, Ellen Feingold, was punched in the nose, and then kicked in the pelvis while she was lying on the floor, by a disgruntled employee to whom she had given notice of dismissal.

What is relevant about this incident is this. The employee in question had been fired from DOT before. But after 18 months of civil service appeals, he had regained his \$32,000-a-year job. The appeals board had called the firing "an abuse of discretion, arbitrary and unreasonable" and had given the employee back pay and benefits totaling more than \$50,000.

The Department of Transportation is unclear as to whether it can fire this employee and a spokesman at the Department says she does not know what impact the assault will have on the employee's future at DOT!

Unfortunately, the whistle blowers with whom FAS has worked do not seem to get comparable protection. It turns out — ask them if you want — that there is some action within the rules, that can be meted out to them as punishment.

What these protections against dismissal seem to assist, are those unreachable personalities who are willing to suffer the unpleasantness and boredom of eating at the public trough without making any corresponding contribution of work. For them, there is no punishment except dismissal. And this punishment, under present rules, is close to impossible to obtain.

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was given in the civil service reform to making the filing of charges unnecessary. (Indeed, the Administration discussion of its proposals always stresses "efficiency in government" not "economy.")

There is a method, however, worth serious consideration, for permitting dismissal in federal employment without opening the door to highly political purges. Let us suppose, for example, that federal employees in specific ranks had to be, in effect, rehired at specific time intervals, for example, every five or ten years. During the five or ten year period, they could only be dismissed for cause, as now, but at the five or ten year anniversary of their hiring, they could be dismissed for no more reason than that their manager thought someone abler or harder working might be found.

This method would not make it possible to dismiss whole sections of the bureaucrcay at once since the employment review would come up in different months and years for different people. And, of course, in the vast majority of cases employees would simply be rehired. For those who were not rehired, it would often be possible for them to find other federal employment. The onus of being fired for cause would disappear and recommendations could be drafted for them.

Some have called this FAS idea a "sunset law on employment"; whatever it is, it appears to be a thought-provoking solution to a rapidly growing sector of American life that is immune to caring whether its job is done well or not, at least insofar as loss of job is concerned.

Certainly, any Administration would have a hard time getting this "sunset law" passed. The Carter Administration was unable to get the outrageously exaggerated veterans' preference reduced, and this is, perhaps, easier to accomplish than our sunset law. (This preference keeps 50% of the federal jobs filled by veterans, although 25% of the national labor force are veterans.) What to do if resistance cannot be overcome?

Under these circumstances, we think the federal government would be wise to stick to the myth of frozen employment levels and continue its practice of using contractors rather than employees. At least the growing numbers of contractors do not get the tenured position of the federal employee per se. And since the body politic seems ready for proposals that freeze employment levels, there is a greater political opportunity to control the problem of tenure by controlling the number of people who get it, than by stripping those who have it of a cherished "right."

In short, if federal employees insist on being frozen in their jobs, perhaps the solution lies in freezing the number of such jobs. At least all others hired to assist them will be under periodic and systematic contractual review. And this will represent not only a "sunset law" on the employees but will also increase the feasibility of sunset laws on many government programs themselves.

----Reviewed and Approved by the FAS Council (With some dissents to be discussed in the next issue)

WHATEVER HAPPENED TO "ECONOMY"?

Official formulations of what the Civil Service Reform Act is supposed to provide seem to avoid the word "economy," yet this is the underlying goal of those who may someday trigger an Executive Branch **Proposition 13. Example:**

"The Civil Service Reform Act would establish in law the governing principles of the federal personnel system. It would establish processes to improve management, stimulate performance and efficiency, provide needed protections for employees, and help achieve the equal employment opportunity expectations to which the federal service is committed and the public is entitled." (Alan Campbell, U.S. Civil Service Commission)

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CAN FIRING FOR CAUSE BE AVOIDED EVEN IF ONE WISHED?

Political appointees serve "at the pleasure of the President" but civil service servants in the competitive service can only be fired for "cause" — specifically "to promote the efficiency of the service." At first, when this protection was legislated in 1912, the causes need not have been related to the employment itself. A homosexual could be fired, for example, from a job that was in no way affected by his homosexuality. Soon the courts applied a concept called "nexus," which required that the cause given for termination had to relate to the position in question.

More recently, the courts have held, in the last 10 or 15 years, that persons in federal employment could not be arbitrarily denied their positions, whether or not covered by a need to be fired for cause (e.g. even if nonveterans in the non-competitive service). In short, federal employees may have some kind of undefined property right to the jobs they hold. One case even suggested that employees had some kind of right to the fulfillment of "reasonable job expectations." (An expert advising FAS said, at this point. "Don't get me wrong, I'm employee oriented, but this scares me!").

In terms of the FAS editorial, this suggests that it would be better to structure any review as if the employee were hired on a contractual basis for a limited term, and then rehired. This is certainly legal since term employment is legal. But, no doubt, there would be problems if competitive positions were not reopened to competition again!

Could Congress just legislate the new procedure of sunset termination of positions, followed by rapid and easy rehiring for the vast majority of employees? Presumably it could. But if the courts argued that employees had a right to the fulfillment of "reasonable expectations" in the absence of some specific cause, and if (as one would expect) most persons were indeed rehired, there might be reasonable expectations that term contracts were going to be renewed.

This all shows a creeping forward of job rights which even radical measures might not, in the end, be able to defeat. \Box

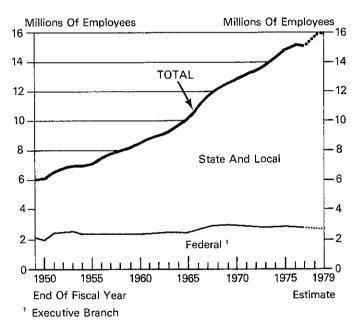
NO ONE KNOWS HOW FAST GOVERNMENT IS REALLY GROWING BUT FAS SAYS IT COULD BE EXPONENTIAL!

Graph I shows the standard view of government employment. State and local government are rising rapidly. But, startlingly, federal employment is almost constant for the last thirty years despite growing government services and budgets. How come?

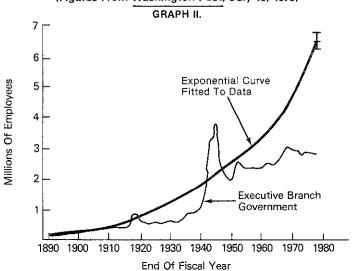
Graph II seems to add to the mystery since it suggests that an exponential increase in the size of the Executive Branch may have been underway throughout the century — if only one could explain why the post World War II period showed such modest increases.

During the FAS investigation, the Washington Post reported, on July 18, 1978 that the federal government was actually paying the salaries of at least 3 million to 4 million in addition to the official civilian payroll of 2.8 million. With this point added to the graph, an exponential curve fits the data nicely (see Graph II). (Graph II prepared by FAS intern John Hill of Princeton University.)

GRAPH I. Government Civilian Employment







SCIENTISTS DENY STOCKPILE RELIABILITY TESTS NEEDED

Four of the most knowledgeable consultants and former employees of Los Alamos Scientific Laboratory argued in late August that the reliability of the stockpile of weapons was not a good argument against the conclusion of a comprehensive nuclear test ban. This directly contradicted the impression which opponents of the nuclear test ban have been giving Congress and others.

The letter to President Carter was drafted by Richard Garwin, co-signed by former Los Alamos Director Norris Bradbury (1945-1970) and by head of the Los Alamos Theoretical Division (1947-1973) J. Carson Mark. It was subsequently endorsed by Hans Bethe, Nobel Laureate, who has consulted for, and worked at, Los Alamos each year since World War II. Garwin himself has been consultant to Los Alamos since 1950.

The letter concludes that:

"We believe that the Department of Energy, through its contractors and laboratories can through the measures described provide continuing assurance for as long as may be desired of the operability of the nuclear weapons stockpile." (*italics added*)

By contrast, newspaper reports had quoted Donald Kerr, Assistant Secretary of Energy for Defense Programs, as saying that:

". . . If the United States signed a comprehensive test ban treaty with the Soviet Union, it still would need to make occasional tests to check the quality of the nation's nuclear stockpile.

He said in 30 years of its nuclear program, the United States made upwards of a dozen nuclear tests to check on stockpile quality."

Asked by FAS, in a telephone interview, whether the 30 tests had been "required" or only "desired," Mr. Kerr said:

"At the times the problems were found, the tests of the corrective measures were thought to be necessary."

But he admitted there is a problem in "making a general statement" since there "might have been a requirement for AEC but not for the country as a whole." In effect, an agency might think it was "required" to test changes it had introduced because DOD insisted upon it. But whether the tests were really "required" in the sense that the country had no other solution was a matter that had not been considered in that 30 year period.

Kerr's main argument was that

"... we are concerned that, given real life pressures and fallible human nature, we might, on occasion, stockpile new designs or inadequately reasoned changes in old ones and that serious unreliability could result."

He admitted that there were no weapons in stockpile which have deteriorated to the point of not functioning properly but said that evidence of corrosion and other deterioration had been found which "if unchecked" would "reduce the reliability of the weapons at some time in the future." Weapons had 15 to 25 year lifetimes according to this factor, he said.

The scientists' letter (see page 5) asserts that weapons found to have deteriorated in serious ways could simply be "remanufactured to precisely the original specifications." After all, we do not normally fire each and every bomb of a given type to check whether each will fire — instead, we test one or more and take on faith that the others, with the same specifications, will fire!

This letter was inspired, in part by newspaper reports (see "U.S. Sees No Early Nuclear Test Ban Accord," Walter Pincus, *Washington Post*, Wednesday, August 9, 1978) which seemed to indicate that opponents of the test ban were succeeding. According to that report, the Directors of the Los Alamos and Livermore Laboratories (Harold Agnew and Roger Batzel respectively) had met with the President on June 15 and had objected to a zero yield, five-year limited test ban.

Notwithstanding their objections, the Government seems still in agreement that any future test ban should not be just a still lower threshold agreement (than the 150 kiloton limit now in force) but should really preclude all nuclear tests. But the debate may be raging over whether the agreement should be five years or three. According to the scientists' letter, it could be indefinite as far as stockpile reliability is concerned.

Administration Confusion

The Administration is generating some confusion on this issue. One newspaper report seemed to imply that Kerr was speaking for the Administration but, in discussions with FAS, Kerr admitted that his remarks had not been cleared with the Administration (indeed, he had spoken from notes only and typed up a "draft" statement afterward). Asked whether he had made clear that he was not speaking for a unified Administration, he said he had said he was speaking for the "Department of Energy" which, evidently, he considered to be not just an identification, but a disclaimer.

In defense of speaking out on this issue without clearance, Kerr said that DOE was a "lead agency" in the matter of testing just as State was a "lead agency" in the matter of diplomatic questions. It seems that, under the Carter Administration, agencies do not feel that they must clear statements with other agencies so long as they have primary responsibility for the subject matter at issue! — but this would make clearances pointless.

The letter to the President was released a day after it was delivered by Senator Kennedy, with the endorsement of the Federation of American Scientists. Senator Kennedy's covering statement criticized Donald Kerr for having said that without nuclear tests —

"... confidence in the nuclear stockpile, in our best judgment, would degrade. Entire weapons systems would have to be deleted from the force structure, systems for which we now see no alternative ... a total cessation of testing in the long run would inevitably result in a steady decline of our confidence in the reliability of our nuclear deterrent and risk a steadily growing asymmetry between US and Soviet military forces."

Kennedy said these statements not only "undercut the President's policy, but they amount to a gross misrepresentation of the implications of a CTB for our national security." He said that the "most determined advocates of nuclear testing" can be found in DOE and in its weapons labs.

LETTER TO THE PRESIDENT

August 15, 1978

President Jimmy Carter The White House Washington, D.C. 20500

Dear Mr. President:

As individuals long involved in the conception, design, manufacture, test, and maintenance of many of the United States' nuclear and thermonuclear weapons, we want you to know of our judgment on a question which has assumed considerable prominence in connection with the Comprehensive Test Ban Treaty ("CTBT"). That is the question of the degree of assurance in the continued operability of our stockpiled nuclear weapons in the absence of any possibility of testing with significant nuclear yield (for instance, with testing limited to laboratory-type experiments.)

As you know, the assurance of continued operability of stockpiled nuclear weapons has in the past been achieved almost exclusively by non-nuclear testing — by meticulous inspection and disassembly of the components of the nuclear weapons, including their firing and fuzing equipment. Problems encountered in this inspection are normally validated by additional sampling and solved by the remanufacture of the affected components. This program is, of course, supplemented by the instrumented firing of the entire nuclear weapon with inert material replacing the fissile materials, and the entire program thus far described would be unaffected by the requirements of a CTBT. It has been exceedingly rare for a weapon to be taken from stockpile and fired "for assurance."

It has also been rare to the point of non-existence for a problem revealed by the sampling and inspection program to *require* a nuclear test for its resolution. There are three acceptable approaches to the correction of deficiencies without requiring nuclear testing:

- 1) Remanufacture to precisely the original specifications.
- 2) Remanufacture with minor modifications in surface treatment, protective coatings, and the like, after thorough review by experienced and knowledgeable individuals.
- Replace the nuclear explosive by one which has previously been tested and accepted for stockpile.

A fourth option, to replace the troubled nuclear system by one not already prooftested may result in improved



Richard L. Garwin

performance, lesser use of special nuclear materials, or the like, virtues which have more to do with improvement of the stockpile than with confirming its operability.

We believe that the key question to be answered by those responsible for making and maintaining nuclear weapons is

"Can the continued operability of our stockpile of nuclear weapons be assured without future nuclear testing? That is, without attempting or allowing *improvement* in performance, reductions in maintenance cost, and the like, are there non-nuclear inspection and correction programs which will prevent the degradation of the reliability of stockpiled weapons?"

Our answer is "yes," and we now discuss the reasons why knowledgeable people may have answered "no" to seemingly similar questions.

First, we confined ourselves essentially to the question, "If the stockpile is not required to improve, can it be kept from degrading?" Others may have had in mind the normal work of the weapons laboratories, by which nuclear weapons are continuously made somewhat more efficient, less costly in terms of nuclear materials, adapted to new packaging requirements, and safer to handle --for instance by the substitution of insensitive explosive. We have participated in such programs and find them both interesting and useful. Were these "improvement programs" carried out long enough without nuclear testing, the weapons thus affected would indeed have uncertain performance; the solution under a CTBT would be to forego such programs in order not to sacrifice stockpile reliability to a desire for minor improvement in performance.

Second, it is true that certain deficiencies have in the past been corrected by the replacement of the affected nuclear system by another one, following a test certifying the replacement model as ready for stockpile. This corrective measure would not be available under a CTBT. But the examples normally cited need *not* have been cor-

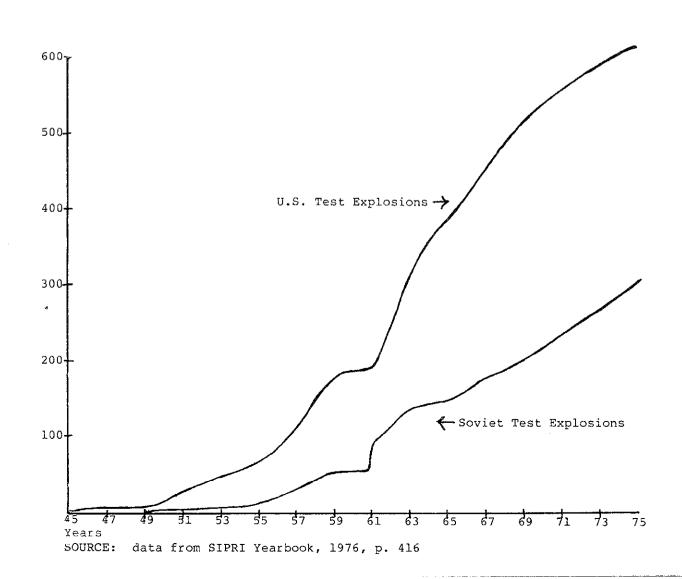
rected in this way; for instance one Polaris warhead problem could readily have been solved by remanufacture with an acceptable change of surface treatment on the component which had caused the problem. The change of nuclear system was not absolutely necessary for the correction of the problem observed.

Finally, it is sometimes claimed that remanufacture may become impossible because of increasingly severe restrictions by EPA or OSHA to protect the environment of the worker. We note that additional protective measures which might be an intolerable cost burden in the manufacture of cardboard or of lightbulbs or of aircraft brakes are easily affordable in connection with the nuclear stockpile. Thus if the worker's environment acceptable until now for the use of asbestos, spray adhesives, or beryllium should be forbidden by OSHA regulations, those few workers needed to continue operations with such material could wear plastic-film suits (supplied with external air) commonly used for isolation against germs and against certain pharmaceuticals. It would be wise also to stockpile in appropriate storage facilities certain commercial materials used in weapons manufacture which might in the future disappear from the commercial scene. It has been suggested that under a CTBT a President or Congress or the Department of Energy might not provide funds for stockpile maintenance inspection and correction, or that a President might not provide a requested exemption from OSHA or EPA requirements. We see no reason to assume that the national security bureaucracy will not continue to serve the national interest, and we would welcome a statement in conjunction with a CTBT that non-nuclear testing, inspection, and remanufacture where necessary will be fully supported in order to ensure the continued operability of stockpiled nuclear weapons.

We believe that the Department of Energy, through its contractors and laboratories, can through the measures described provide continuing assurance for as long as may be desired of the operability of the nuclear weapons stockpile. We are making this statement available to others in the Executive and the Congress.

Sincerely Yours, Norris E. Bradbury Richard L. Garwin J. Carson Mark





FAS OFFICIALS COMMENT ON FUNDING PROBLEMS

On learning that one of FAS's most creative scientists, Donald A. Glaser, was having problems with the funding of an expensive experimental device in his biological research, FAS wrote 52 of its senior scientists asking whether the tightening of funding was having deleterious effects on the optimum distribution of research funds. Needless to say, these questions rarely admit of a consensus. (Indeed, Dr. Glaser won the Nobel prize in physics for a device which was considered so implausible that it could not be funded.)

A number of respondents thought the funding problem was not the creation of "play-it-safe" attitudes by researchers, but the difficulty which young scientists had in "getting into the sciences" (from a physicist). A senior medical doctor in cancer radiology agreed that "many of my young colleagues are becoming increasingly discouraged, and only the most outstanding and imaginative among them have been able to secure funding with any degree of reliability."

By contrast, two younger Nobelists in biology thought things were going quite well as regards the quality of research and the ability of excellent young scientists to get funded. But one said the major problem was "an excess of funded positions for post-doctoral fellows in many laboratories and a shortage of tenure track or leading-to-permanent positions for people once they finish their post-doctoral work."

Research Discouraged?

A Nobelist in physics thought "some of the bolder and more imaginative types of research and some of the less known research workers are being handicapped and discouraged" by the funding squeeze. He felt the reasons were unwillingness of reviewers to "take chances on untried new fields and on individuals who are not already well established, too great subdivision of funds into smaller pieces, and even a feeling that money spent on one project may not be available to their own.

Admitting that his standing as a Nobelist in physics must help "enormously," one respondent complained that the number of proposals necessary to get grants or contracts, which were then only good for one year, was "very time consuming."

A different complaint from another senior biological researcher was the "ever greater demands for more report writing" by international agencies.

Nobelist Paul Flory agreed that "the effect of funding restrictions is particularly severe on those who are at the threshold of their scientific careers" but noted also the "disenchantment of the less aggressive aspirants (and often the more sensitive ones) by the necessity to enter the keen competition for limited research funds. It placed a premium on entrepreneurism." He felt he might himself have lost interest in science at the outset had the present system been in operation then. He felt the "prevailing professional approach to scientific research is as misdirected as it is repugnant to those most gifted for its pursuit." Peer groups, performing admirably and selflessly, were nevertheless excited by proposal in direct proportion to the "degree of overlap with the scientific interests of the one excited."

Finally, he cautioned that the scientific community would have to expect curtailment of funds for, and political control, its activities if it did not weigh carefully the demands of society for new knowledge in certain areas relevant to societal problems.

An FAS Sponsor in medicine said that his complaint was not the tightening of funding in his field, "health services research — but the lousy quality of the research." ("What research is done comes out of universities initiated by people who sit in chairs and whose motives are to get promoted, not to solve real problems . . .")

Two FAS Sponsors felt the major problem was the targeting of research as, for example, in cancer.

Some constructive ideas were passed along. Dr. Robert W. Holley, Nobelist in biology, thought there might be some kind of graded funding of NIH projects based on priority rating:

"From the standpoint of science, it is absurd to fund one proposal fully and not provide any funds for the next lower priority project. The effect of graded funding would be to spread the research funds more widely and to make the cutoff less arbitrary. Some administrators will not understand, because they think they are buying research in indivisible packages but that is true of few projects."

Dr. Renato Dulbecco, a Nobelist in biology, thought: "Perhaps it would be worthwhile to have a special class of small grants for limited periods of time especially devoted to such new undertakings in which the main criterion for judgment would be the personality of the applicant rather than his/her detailed knowledge of the field."

Linus Pauling wrote that his work in vitamin C had received approval from the appropriate peer review committee, but such low priority that it had not been funded. In a letter to the National Cancer Institute, which he sent FAS, he observed:

"When in 1935, I had the idea it would be worthwhile to study the magnetic properties of hemoglobin and its derivatives, to see if some questions about the structure of the molecules and the nature of the binding of the iron atom to the globin and to the attached oxygen molecule or carbon monoxide could be answered, I applied to the Rockefeller Foundation, and was given a grant. I had had essentially no experience in measuring magnetic susceptibilities. . . . The officers of the Rockefeller Foundation apparently decided that my success in experimental studies of the structure of crystals by the x-ray diffraction method and of the study of gas molecules by the electron-diffraction method indicated that I could also plan and carry out measurements of the magnetic susceptibility of blood."

He concludes that decisions should be made "not only of the originality and promise of the ideas basic to the proposed study, but also of the ability of the investigator to carry on research." \Box



Jerome B. Wiesner

DECLINE IN BUDGET UNDERMINES SCIENTIFIC CREATIVITY

Text of a letter from Dr. Jerome B. Wiesner, President of MIT, to FAS:

There is no doubt about it. The tightening up of research funding is having a serious erosive impact on scientific creativity which in turn erodes the nation's economic and geopolitical strength.

As you know, academic basic research received fewer funds in constant dollars in 1977 than it did in 1968. The considerable expansion of faculties in the last decade, as well as the congressional pressures for wider geographical distribution have compounded the impact of the funding shortage on individual research groups.

The result is short-term funding where we used to have longer-term funding and fragmentation of grants so that faculty researchers spend a larger and larger proportion of their time simply seeking potential supporters, writing proposals and seeking money. Today they are often forced to work on smaller-than-critical-size research

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 I wish to renew membership for the calendar year 1979. I wish to join FAS and receive the newsletter as a full member. Enclosed is my check for 1979 calendar year dues. (☐ I am not a natural or social scientist, lawyer, doctor or engineer, but wish to become a non-voting associate member.) \$25 ☐ \$50 ☐ \$100 ☐ \$500 ☐ \$12.50 Member Supporting Patron Life Under \$10,000
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projects. Funding by means of small fragmented grants makes it difficult for universities to build up strong research teams, since only short-term commitments can be made even to first-rate people.

Federal help for purchasing research instruments and equipment has all but disappeared, so now we are struggling with five- and ten-year old equipment.

There is increasing emphasis by sponsors on research directed toward specific problems and less support for imaginative, venturesome, risky work, interesting primarily for its own sake.

The difficulties basic research in the United States has experienced in the past decade are cumulative and I fear that one day, five or ten years from now, we'll look back and see that we should have done something about it today and didn't. Once we slide too far down the hill, it will be increasingly difficult to climb back up.

This is a general agreement that the future economic and political strength of our technological nation depends, absolutely, on a strong, vital and wide ranging basic research program, but many activities of the government reduce the ability of universities to be effective research institutions. There is a continuing effort to "tighten up controls" and achieve administrative convenience but whose major result will be to make the situation of the research-oriented university more difficult. Too many of us spend a large fraction of our time these days coping with potential disasters conjured up by the federal agencies that sponsor and monitor research expenditures. A current example of this is the revised version of the OMB document A-21 which would change long-standing and successful government-university arrangements in ways very destructive of the basic research enterprise. This is just the latest in a series of federal actions that are making the nation's research-oriented universities ever less effective and more difficult to sustain. Therefore, I am convinced that we should do everything possible to achieve more adequate, healthful management and funding patterns and a more supportive Congressional and Executive Branch attitude toward the universities that do so much of the nation's basic research.

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