United States Senate

COMMITTEE ON
GOVERNMENTAL AFFAIRS
SUBCOMMITTEE ON ENERGY, NUCLEAR
PROLIFERATION AND GOVERNMENT PROCESSES
WASHINGTON, D.C. 20510

August 6, 1982

Dr. Marshall W. Nirenberg
Laboratory of Biochemical Genetics
National Heart, Lung, and
Blood Institute
National Institutes of Health
Bethesda, Maryland 20014

Dear Dr. Nirenberg:

I want to thank you for the information given in response to my inquiry regarding Federal financial support of scientific and technological research. Your perspective on the impact that federally funded research has had on your work and achievements is most valuable to me in my efforts to emphasize the importance of stable and predictable Federal funding of basic research. I welcome both your analysis of past scientific accomplishments that Federal funding has permitted as well as your predictions for future difficulties that U.S. science will encounter if such support is discontinued or decreased.

Enclosed are the results of the survey to which you and other Nobel scientists contributed. It is my intention to make the aggregate data publicly available.

In addition, it might also be useful to have the specific replies released for public view so that the statistics can be verified by anyone caring to do so. If you would prefer not to have the information which you provided made public in this way, please let me know and I shall respect your wishes. Again, thank you for the facts and views that you have provided me.

Best regards.

Sincerely,

John Glenn

John Glenn

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Enclosure

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RESULTS OF SURVEY OF AMERICAN NOBEL PRIZE WINNERS CONCERNING FEDERAL FUNDING FOR RESEARCH

Letters requesting data were sent to 54 Nobel Prize winners representing all the Americans who won the Prize in Physics, Chemistry, or Physiology and Medicine during the years 1967-1981. Twenty-eight scientists responded by letter, and nineteen responses were obtained by telephone. Seven scientists did not respond. The total response rate was 87%.

Scientists were asked if they had received federal support in the course of their research that led to their receipt of the Nobel Prize, and if so, to offer a brief summary of the type of support received. Furthermore, they were asked to indicate the importance of the role that federal financial support played in the conduct of their research.

Respondees fell into two distinct categories: Those who received at least half their research support from the federal government and those who received little or no direct support.

STRENGTH OF FEDERAL SUPPORT

Table 1: Summary of data on support from federal government for Nobel Prize winning research (for awards granted during the period 1967-1981).

Substantial Direct Support (50-100% of funds from gov't)	Little or No Direct Support
83%	17%
(39/47)*	(8/47)**

* Of this number, 28 scientists (60% of respondees) received from 90-100% of the financial support for their research from the government. This category includes 6 scientists who are full time government employees:
4 are employed by NIH, and 2 are employed by the Veterans Administration.

** Of the 8 scientists in this category:

a. 4 scientists were industrially supported; 3 work for Bell Laboratories (AT&T) the fourth works for General Electric. Two industrially supported scientists stressed that they received indirect federal support through the use of federally funded facilities or through reliance on previously conducted research of other scientists who had been federally funded. Another scientist offered the opinion that he would be unable to duplicate his research today without federal funds.

b. Two scientists had carried out most of their prize-winning research prior to World War II when federal funds for research were not available.

c. One scientist started his prize-winning work before coming to the U.S. and continued it here as a hobby.

d. The work of one prize-winning scientist was indirectly related to his main research efforts (which were federally funded).

NECESSITY OF FEDERAL SUPPORT

Federally funded scientists were asked to evaluate the necessity of federal financial support to the conduct of their research. Thirty-eight of the thirty-nine scientists who received substantial direct federal support indicated that federal funds were vitally necessary to their work.

SOURCES OF FEDERAL FUNDS

Although scientists were not requested to do so, may federally funded respondees mentioned specific agencies as sources of their support. This information is tabulated below.

Table 2: Exhibits the percentages of federally funded scientists who mentioned any of the following sources of funds as financially instrumental in their research.

	NIH	NSF	DOD	AEC/DOE	PHS	V.A.
Total Times Mentioned	62% (24/39)	31% (12/39)	34% (13/38)	8% (3/39)	8% (3/39)	5% (2/39)
Mentioned as Sole Source of funds	33% (13/39)	0% (0/39)	18% (7/39)	3% (1/39)	3% (1/39)	3% (1/39)

CATEGORIZATION OF COMBINED SOURCES

NIH/NSF	NSF/DOD	NIH/PHS	NIH/VA	Energy/DOD
15% (6/39)	10% (4/39)	5% (2/39)	3% (1/39)	3% (1/39)

* This categorization exhibits percentages of scientists who mentioned the given combined sources of federal funding.