

Calendar No. 205

106TH CONGRESS
1ST Session

S. 296

[Report No. 106-106]

A BILL

To provide for continuation of the Federal research investment in a fiscally sustainable way, and for other purposes.

JULY 12, 1999

Reported with amendments

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1ST SESSION**S. 296****[Report No. 106-106]**

To provide for continuation of the Federal research investment in a fiscally sustainable way, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JANUARY 22, 1999

Mr. FRIST (for himself, Mr. ROCKEFELLER, Mr. DOMENICI, Mr. LIEBERMAN, Mr. GRAMM, Mr. BINGAMAN, Mr. BURNS, Mr. BREAUX, Mrs. HUTCHISON, Mr. CLELAND, Mr. THOMPSON, Mr. KERRY, Mr. DEWINE, Mr. KERREY, Mr. ABRAHAM, Mr. AKAKA, Mr. ALLARD, Mrs. BOXER, Mr. ROBERTS, Mr. ROBB, Ms. SNOWE, Ms. LANDRIEU, Mr. COCHRAN, Mr. SARBANES, Mr. LEVIN, Mr. DODD, Mr. SANTORUM, Mr. CRAPO, Mr. KENNEDY, Mr. DURBIN, Mr. MOYNIHAN, Mrs. FEINSTEIN, Mr. ASHCROFT, Mrs. MURRAY, Mr. CONRAD, Mr. COVERDELL, Mr. SCHUMER, Mr. LOTT, Mr. THURMOND, Mr. BUNNING, and Mr. DASCHLE) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

JULY 12, 1999

Reported by Mr. MCCAIN, with amendments

[Omit the part struck through and insert the part printed in *italic*]

A BILL

To provide for continuation of the Federal research investment in a fiscally sustainable way, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Federal Research In-

5 vestment Act”.

6 **SEC. 2. GENERAL FINDINGS REGARDING FEDERAL INVEST-**
7 **MENT IN RESEARCH.**

8 (a) VALUE OF RESEARCH AND DEVELOPMENT.—The
9 Congress makes the following findings with respect to the
10 value of research and development to the United States:

11 (1) Federal investment in research has resulted
12 in the development of technology that saved lives in
13 the United States and around the world.

14 (2) Research and development investment
15 across all Federal agencies has been effective in cre-
16 ating technology that has enhanced the American
17 quality of life.

18 (3) The Federal investment in research and de-
19 velopment conducted or underwritten by both mili-
20 tary and civilian agencies has produced benefits that
21 have been felt in both the private and public sector.

22 (4) Discoveries across the spectrum of scientific
23 inquiry have the potential to raise the standard of
24 living and the quality of life for all Americans.

1 (5) Science, engineering, and technology play a
2 critical role in shaping the modern world.

3 (6) Studies show that about half of all United
4 States post-World War II economic growth is a di-
5 rect result of technical innovation; and science, engi-
6 neering, and technology contribute to the creation of
7 new goods and services, new jobs and new capital.

8 (7) Technical innovation is the principal driving
9 force behind the long-term economic growth and in-
10 creased standards of living of the world's modern in-
11 dustrial societies. Other nations are well aware of
12 the pivotal role of science, engineering, and tech-
13 nology, and they are seeking to exploit it wherever
14 possible to advance their own global competitiveness.

15 (8) Federal programs for investment in re-
16 search, which lead to technological innovation and
17 result in economic growth, should be structured to
18 address current funding disparities and develop en-
19 hanced capability in States and regions that cur-
20 rently underparticipate in the national science and
21 technology enterprise.

22 (b) STATUS OF THE FEDERAL INVESTMENT.—The
23 Congress makes the following findings with respect to the
24 status of the Federal Investment in research and develop-
25 ment activities:

1 (1) Federal investment of approximately 13 to
2 14 percent of the Federal discretionary budget in re-
3 search and development over the past 11 years has
4 resulted in a doubling of the nominal amount of
5 Federal funding.

6 (2) Fiscal realities now challenge Congress to
7 steer the Federal government's role in science, engi-
8 neering, and technology in a manner that ensures a
9 prudent use of limited public resources. There is
10 both a long-term problem—addressing the ever-in-
11 creasing level of mandatory spending—and a near-
12 term challenge—apportioning a dwindling amount of
13 discretionary funding to an increasing range of tar-
14 gets in science, engineering, and technology. This
15 confluence of increased national dependency on tech-
16 nology, increased targets of opportunity, and de-
17 creased fiscal flexibility has created a problem of na-
18 tional urgency. Many indicators show that more
19 funding for science, engineering, and technology is
20 needed but, even with increased funding, priorities
21 must be established among different programs. The
22 United States cannot afford the luxury of fully fund-
23 ing all deserving programs.

24 (3) Current projections of Federal research
25 funding show a downward trend.

1 **SEC. 3. SPECIAL FINDINGS REGARDING HEALTH-RELATED**
2 **RESEARCH.**

3 *The Congress makes the following findings with respect*
4 *to health-related research:*

5 (1) *HEALTH AND ECONOMIC BENEFITS PROVIDED*
6 *BY HEALTH-RELATED RESEARCH.*—*Because of health-*
7 *related research, cures for many debilitating and fatal*
8 *diseases have been discovered and deployed. At*
9 *present, the medical research community is on the*
10 *cusp of creating cures for a number of leading dis-*
11 *eases and their associated burdens. In particular,*
12 *medical research has the potential to develop treat-*
13 *ments that can help manage the escalating costs asso-*
14 *ciated with the aging of the United States population.*

15 (2) *FUNDING OF HEALTH-RELATED RE-*
16 *SEARCH.*—*Many studies have recognized that clinical*
17 *and basic science are in a state of crisis because of*
18 *a failure of resources to meet the opportunity. Con-*
19 *sequently, health-related research has emerged as a*
20 *national priority and has been given significantly in-*
21 *creased funding by Congress in fiscal year 1999. In*
22 *order to continue addressing this urgent national*
23 *need, the pattern of substantial budgetary expansion*
24 *begun in fiscal year 1999 should be maintained.*

25 (3) *INTERDISCIPLINARY NATURE OF HEALTH-RE-*
26 *LATED RESEARCH.*—*Because all fields of science and*

1 *engineering are interdependent, full realization of the*
2 *nation's historic investment in health will depend on*
3 *major advances both in the biomedical sciences and in*
4 *other science and engineering disciplines. Hence, the*
5 *vitality of all disciplines must be preserved, even as*
6 *special considerations are given to the health research*
7 *field.*

8 **SEC. 3. SEC. 4. ADDITIONAL FINDINGS REGARDING THE**
9 **LINK BETWEEN THE RESEARCH PROCESS**
10 **AND USEFUL TECHNOLOGY.**

11 The Congress makes the following findings:

12 (1) FLOW OF SCIENCE, ENGINEERING, AND
13 TECHNOLOGY.—The process of science, engineering,
14 and technology involves many steps. The present
15 Federal science, engineering, and technology struc-
16 ture reinforces the increasingly artificial distinctions
17 between basic and applied activities. The result too
18 often is a set of discrete programs that each support
19 a narrow phase of research or development and are
20 not coordinated with one another. The government
21 should maximize its investment by encouraging the
22 progression of science, engineering, and technology
23 from the earliest stages of research up to a pre-com-
24 mercialization stage, through funding agencies and
25 vehicles appropriate for each stage. This creates a

1 flow of technology, subject to merit review at each
2 stage, so that promising technology is not lost in a
3 bureaucratic maze.

4 (2) EXCELLENCE IN THE AMERICAN RESEARCH
5 INFRASTRUCTURE.—Federal investment in science,
6 engineering, and technology programs must foster a
7 close relationship between research and education.
8 Investment in research at the university level creates
9 more than simply world-class research. It creates
10 world-class researchers as well. The Federal strategy
11 must continue to reflect this commitment to a strong
12 geographically-diverse research infrastructure. Fur-
13 thermore, the United States must find ways to ex-
14 tend the excellence of its university system to pri-
15 mary and secondary educational institutions and to
16 better utilize the community college system to pre-
17 pare many students for vocational opportunities in
18 an increasingly technical workplace.

19 (3) COMMITMENT TO A BROAD RANGE OF RE-
20 SEARCH INITIATIVES.—An increasingly common
21 theme in many recent technical breakthroughs has
22 been the importance of revolutionary innovations
23 that were sparked by overlapping of research dis-
24 ciplines. The United States must continue to encour-
25 age this trend by providing and encouraging oppor-

1 tunities for interdisciplinary projects that foster col-
2 laboration among fields of research.

3 (4) PARTNERSHIPS AMONG INDUSTRY, UNIVER-
4 SITIES, AND FEDERAL LABORATORIES.—Each of
5 these contributors to the national science and tech-
6 nology delivery system has special talents and abili-
7 ties that complement the others. In addition, each
8 has a central mission that must provide their focus
9 and each has limited resources. The nation’s invest-
10 ment in science, engineering, and technology can be
11 optimized by seeking opportunities for leveraging the
12 resources and talents of these three major players
13 through partnerships that do not distort the mis-
14 sions of each partner. For that reason, Federal dol-
15 lars are wisely spent forming such partnerships.

16 **SEC. 4. SEC. 5. MAINTENANCE OF FEDERAL RESEARCH EF-**
17 **FORT; GUIDING PRINCIPLES.**

18 (a) MAINTAINING UNITED STATES LEADERSHIP IN
19 SCIENCE, ENGINEERING, AND TECHNOLOGY.—It is im-
20 perative for the United States to nurture its superb re-
21 sources in science, engineering, and technology carefully
22 in order to maintain its own globally competitive position.

23 (b) GUIDING PRINCIPLES.—Federal research and de-
24 velopment programs should be conducted in accordance
25 with the following guiding principles:

1 (1) GOOD SCIENCE.—Federal science, engineer-
2 ing, and technology programs include both knowl-
3 edge-driven science together with its applications,
4 and mission-driven, science-based requirements. In
5 general, both types of programs must be focused,
6 peer- and merit-reviewed, and not unnecessarily du-
7 plicative, although the details of these attributes
8 must vary with different program objectives.

9 (2) FISCAL ACCOUNTABILITY.—The Congress
10 must exercise oversight to ensure that programs
11 funded with scarce Federal dollars are well man-
12 aged. The United States cannot tolerate waste of
13 money through inefficient management techniques,
14 whether by government agencies, by contractors, or
15 by Congress itself. Fiscal resources would be better
16 utilized if program and project funding levels were
17 predictable across several years to enable better
18 project planning; a benefit of such predictability
19 would be that agencies and Congress can better ex-
20 ercise oversight responsibilities through comparisons
21 of a project's and program's progress against care-
22 fully planned milestones.

23 (3) PROGRAM EFFECTIVENESS.—The United
24 States needs to make sure that government pro-
25 grams achieve their goals. As the Congress crafts

1 science, engineering, and technology legislation, it
2 must include a process for gauging program effec-
3 tiveness, selecting criteria based on sound scientific
4 judgment and avoiding unnecessary bureaucracy.
5 The Congress should also avoid the trap of meas-
6 uring the effectiveness of a broad science, engineer-
7 ing, and technology program by passing judgment
8 on individual projects. Lastly, the Congress must
9 recognize that a negative result in a well-conceived
10 and executed project or program may still be criti-
11 cally important to the funding agency.

12 (4) CRITERIA FOR GOVERNMENT FUNDING.—
13 Program selection for Federal funding should con-
14 tinue to reflect the nation's 2 traditional research
15 and development priorities: (A) basic, scientific, and
16 technological research that represents investments in
17 the nation's long-term future scientific and techno-
18 logical capacity, for which government has tradition-
19 ally served as the principle resource; and (B) mis-
20 sion research investments, that is, investments in re-
21 search that derive from necessary public functions,
22 such as defense, health, education, environmental
23 protection, and raising the standard of living, which
24 may include pre-commercial, pre-competitive engi-
25 neering research and technology development. Addi-

1 tionally, government funding should not compete
2 with or displace the short-term, market-driven, and
3 typically more specific nature of private-sector fund-
4 ing. Government funding should be restricted to pre-
5 competitive activities, leaving competitive activities
6 solely for the private sector. As a rule, the govern-
7 ment should not invest in commercial technology
8 that is in the product development stage, very close
9 to the broad commercial marketplace, except to meet
10 a specific agency goal. When the government pro-
11 vides funding for any science, engineering, and tech-
12 nology investment program, it must take reasonable
13 steps to ensure that the potential benefits derived
14 from the program will accrue broadly.

15 **SEC. 5. SEC. 6. POLICY STATEMENT.**

16 (a) **POLICY.**—This Act is intended—

17 (1) to encourage, as an overall goal, the dou-
18 bling of the annual authorized amount of Federal
19 funding for basic scientific, medical, and pre-com-
20 petitive engineering research over the 11-year period
21 following the date of enactment of this Act;

22 (2) to invest in the future of the United States
23 and the people of the United States by expanding
24 the research activities referred to in paragraph (1);

1 ~~(3)~~ to enhance the quality of life for all people
2 of the United States;

3 ~~(4)~~ to guarantee the leadership of the United
4 States in science, engineering, medicine, and tech-
5 nology; and

6 ~~(5)~~ to ensure that the opportunity and the sup-
7 port for undertaking good science is widely available
8 throughout the States by supporting a geographi-
9 cally-diverse research and development enterprise.

10 (a) *POLICY.*— *This Act is intended to—*

11 (1) *assure a base level of Federal funding for*
12 *basic scientific, biomedical, and pre-competitive engi-*
13 *neering research, with this base level defined as a*
14 *doubling of Federal basic research funding over the 11*
15 *year period following the date of enactment of this*
16 *Act;*

17 (2) *invest in the future economic growth of the*
18 *United States by expanding the research activities re-*
19 *ferred to in paragraph (1);*

20 (3) *enhance the quality of life and health for all*
21 *people of the United States through expanded support*
22 *for health-related research;*

23 (4) *allow for accelerated growth of agencies such*
24 *as the National Institutes of Health to meet critical*
25 *national needs;*

1 (5) *guarantee the leadership of the United States*
2 *in science, engineering, medicine, and technology; and*

3 (6) *ensure that the opportunity and the support*
4 *for undertaking good science is widely available*
5 *throughout the United States by supporting a geo-*
6 *graphically-diverse research and development enter-*
7 *prise.*

8 (b) AGENCIES COVERED.—The agencies intended to
9 be covered to the extent that they are engaged in science,
10 engineering, and technology activities for basic scientific,
11 medical, or pre-competitive engineering research by this
12 Act are—

13 (1) the National Institutes of Health, within the
14 Department of Health and Human Services;

15 (2) the National Science Foundation;

16 (3) the National Institute for Standards and
17 Technology, within the Department of Commerce;

18 (4) the National Aeronautics and Space Admin-
19 istration;

20 (5) the National Oceanic and Atmospheric Ad-
21 ministration, within the Department of Commerce;

22 (6) the Centers for Disease Control, within the
23 Department of Health and Human Services;

24 (7) the Department of Energy (to the extent
25 that it is not engaged in defense-related activities);

- 1 (8) the Department of Agriculture;
- 2 (9) the Department of Transportation;
- 3 (10) the Department of the Interior;
- 4 (11) the Department of Veterans Affairs;
- 5 (12) the Smithsonian Institution;
- 6 (13) the Department of Education;
- 7 (14) the Environmental Protection Agency; and
- 8 (15) the ~~Federal~~ *Food and Drug Administration*, within the Department of Health and Human
9 Services.

11 ~~(e)~~ **CURRENT INVESTMENT.**—The investment in civil-
12 ~~ian research and development efforts for fiscal year 1998~~
13 ~~was 2.1 percent of the overall Federal budget.~~

14 ~~(d)~~ **(c) DAMAGE TO RESEARCH INFRASTRUCTURE.**—
15 A continued trend of funding appropriations equal to or
16 lower than current budgetary levels will lead to permanent
17 damage to the United States research infrastructure. This
18 could threaten American dominance of high-technology in-
19 dustrial leadership.

20 ~~(e)~~ **INCREASE FUNDING.**—In order to maintain and
21 ~~enhance the economic strength of the United States in the~~
22 ~~world market, funding levels for fundamental, scientific,~~
23 ~~and pre-competitive engineering research should be in-~~
24 ~~creased to equal approximately 2.6 percent of the total an-~~
25 ~~nuual budget.~~

1 ~~(f)~~ (d) FUTURE FISCAL YEAR ALLOCATIONS.—

2 (1) GOALS.—The long-term strategy for re-
3 search and development funding under this section
4 would be achieved by a steady 2.5 percent annual in-
5 crease above the rate of inflation throughout a 11-
6 year period.

7 (2) INFLATION ASSUMPTION.—The authoriza-
8 tions contained in paragraph (3) assume that the
9 rate of inflation for each year will be 3 percent.

10 (3) AUTHORIZATION.—There are authorized to
11 be appropriated for civilian research and develop-
12 ment in the agencies listed in subsection (b)—

13 (A) \$39,790,000,000 for fiscal year 2000;

14 (B) \$41,980,000,000 for fiscal year 2001;

15 (C) \$42,290,000,000 for fiscal year 2002;

16 (D) \$46,720,000,000 for fiscal year 2003;

17 (E) ~~\$49,290,000,000~~ \$44,290,000,000 for
18 fiscal year 2004;

19 (F) \$52,000,000,000 for fiscal year 2005;

20 (G) \$54,870,000,000 for fiscal year 2006;

21 (H) \$57,880,000,000 for fiscal year 2007;

22 (I) \$61,070,000,000 for fiscal year 2008;

23 (J) \$64,420,000,000 for fiscal year 2009;

24 and

25 (K) \$67,970,000,000 for fiscal year 2010.

1 (4) *ACCELERATION TO MEET NATIONAL*
2 *NEEDS.—*

3 (A) *IN GENERAL.—If the amount appro-*
4 *priated for any fiscal year to an agency for the*
5 *purposes stated in paragraph (3) increases by*
6 *more than 8 percent over the amount appro-*
7 *priated to it for those purposes for the preceding*
8 *fiscal year, then the amounts authorized by*
9 *paragraph (3) for subsequent fiscal years for that*
10 *agency and other agencies shall be determined*
11 *under subparagraphs (B) and (C).*

12 (B) *EXCLUSION OF AGENCY IN DETER-*
13 *MINING OTHER AGENCY AMOUNTS FOR NEXT FIS-*
14 *CAL YEAR.—For the next fiscal year after a fis-*
15 *cal year described in subparagraph (A), the*
16 *amount authorized to be appropriated to other*
17 *agencies under paragraph (3) shall be deter-*
18 *mined by excluding the agency described in sub-*
19 *paragraph (A). Any amount that would, but for*
20 *this subparagraph, be authorized to be appro-*
21 *priated to that agency shall not be appropriated.*

22 (C) *RESUMPTION OF REGULAR TREAT-*
23 *MENT.—Notwithstanding subparagraph (B), an*
24 *agency may not be excluded from the determina-*
25 *tion of the amount authorized to be appropriated*

1 *under paragraph (3) for a fiscal year following*
 2 *a fiscal year for which the sum of the amounts*
 3 *appropriated to that agency for fiscal year 2000*
 4 *and all subsequent fiscal years for the purposes*
 5 *described in paragraph (3) does not exceed the*
 6 *sum of—*

7 *(i) the amount appropriated to that*
 8 *agency for such purposes for fiscal year*
 9 *2000; and*

10 *(ii) the amounts that would have been*
 11 *appropriated for such purposes for subse-*
 12 *quent fiscal years if the goal described in*
 13 *paragraph (1) had been met (and not ex-*
 14 *ceeded) with respect to that agency's fund-*
 15 *ing.*

16 *(D) NO LIMITATION ON OTHER FUNDING.—*

17 *Nothing in this paragraph limits the amount*
 18 *that may be appropriated to any agency for the*
 19 *purposes described in paragraph (3).*

20 ~~(g)~~ *(e) CONFORMANCE WITH BUDGETARY CAPS.—*

21 Notwithstanding any other provision of law, no funds may
 22 be made available under this Act in a manner that does
 23 not conform with the discretionary spending caps provided
 24 in the most recently adopted concurrent resolution on the

1 budget or threatens the economic stability of the annual
2 budget.

3 ~~(H)~~ (f) BALANCED RESEARCH PORTFOLIO.—Because
4 of the interdependent nature of the scientific and engi-
5 neering disciplines, the aggregate funding levels author-
6 ized by the section assume that the Federal research port-
7 folio will be well-balanced among the various scientific and
8 engineering disciplines, and geographically dispersed
9 throughout the States.

10 **SEC. 6. SEC. 7. PRESIDENT'S ANNUAL BUDGET REQUEST.**

11 The President of the United States shall, in coordina-
12 tion with the President's annual budget request, include
13 a report that parallels Congress' commitment to support
14 Federally-funded research and development by
15 providing—

16 (1) a detailed summary of the total level of
17 funding for research and development programs
18 throughout all civilian agencies;

19 (2) a focused strategy that reflects the funding
20 projections of this Act for each future fiscal year
21 until 2010, including specific targets for each agency
22 that funds civilian research and development;

23 (3) an analysis which details funding levels
24 across Federal agencies by methodology of funding,
25 including grant agreements, procurement contracts,

1 and cooperative agreements (within the meaning
 2 given those terms in chapter 63 of title 31, United
 3 States Code); and

4 (4) specific proposals for infrastructure develop-
 5 ment and research and development capacity build-
 6 ing in States with less concentrated research and de-
 7 velopment resources in order to create a nationwide
 8 research and development community.

9 **SEC. 7. SEC. 8. COMPREHENSIVE ACCOUNTABILITY STUDY**
 10 **FOR FEDERALLY-FUNDED RESEARCH.**

11 (a) STUDY.—The Director of the Office of Science
 12 and Technology Policy, in consultation with the Director
 13 of the Office of Management and Budget, shall enter into
 14 agreement with the National Academy of Sciences for the
 15 Academy to conduct a comprehensive study to develop
 16 methods for evaluating Federally-funded research and de-
 17 velopment programs. This study shall—

18 (1) recommend processes to determine an ac-
 19 ceptable level of success for Federally-funded re-
 20 search and development programs by—

21 (A) describing the research process in the
 22 various scientific and engineering disciplines;

23 (B) describing in the different sciences
 24 what measures and what criteria each commu-
 25 nity uses to evaluate the success or failure of a

1 program, and on what time scales these meas-
2 ures are considered reliable—both for explor-
3 atory long-range work and for short-range
4 goals; and

5 (C) recommending how these measures
6 may be adapted for use by the Federal govern-
7 ment to evaluate Federally-funded research and
8 development programs;

9 (2) assess the extent to which agencies incor-
10 porate independent merit-based review into the for-
11 mulation of the strategic plans of funding agencies
12 and if the quantity or quality of this type of input
13 is unsatisfactory;

14 (3) recommend mechanisms for identifying Fed-
15 erally-funded research and development programs
16 which are unsuccessful or unproductive;

17 (4) evaluate the extent to which independent,
18 merit-based evaluation of Federally-funded research
19 and development programs and projects achieves the
20 goal of eliminating unsuccessful or unproductive pro-
21 grams and projects; and

22 (5) investigate and report on the validity of
23 using quantitative performance goals for aspects of
24 programs which relate to administrative manage-

1 ment of the program and for which such goals would
2 be appropriate, including aspects related to—

3 (A) administrative burden on contractors
4 and recipients of financial assistance awards;

5 (B) administrative burdens on external
6 participants in independent, merit-based evalua-
7 tions;

8 (C) cost and schedule control for construc-
9 tion projects funded by the program;

10 (D) the ratio of overhead costs of the pro-
11 gram relative to the amounts expended through
12 the program for equipment and direct funding
13 of research; and

14 (E) the timeliness of program responses to
15 requests for funding, participation, or equip-
16 ment use.

17 (6) examine the extent to which program selec-
18 tion for Federal funding across all agencies exempli-
19 fies our nation's historical research and development
20 priorities—

21 (A) basic, scientific, and technological re-
22 search in the long-term future scientific and
23 technological capacity of the nation; and

24 (B) mission research derived from a high-
25 priority public function.

1 (b) ALTERNATIVE FORMS FOR PERFORMANCE
2 GOALS.—Not later than 6 months after transmitting the
3 report under subsection (a) to Congress, the Director of
4 the Office of Management and Budget, after public notice,
5 public comment, and approval by the Director of the Of-
6 fice of Science and Technology Policy and in consultation
7 with the National Science and Technology Council shall
8 promulgate one or more alternative forms for performance
9 goals under section 1115(b)(10)(B) of title 31, United
10 States Code, based on the recommendations of the study
11 under subsection (a) of this section. The head of each
12 agency containing a program activity that is a research
13 and development program may apply an alternative form
14 promulgated under this section for a performance goal to
15 such a program activity without further authorization by
16 the Director of the Office of Management and Budget.

17 (c) STRATEGIC PLANS.—Not later than one year
18 after promulgation of the alternative performance goals in
19 subsection (b) of this section, the head of each agency car-
20 rying out research and development activities, upon updat-
21 ing or revising a strategic plan under subsection 306(b)
22 of title 5, United States Code, shall describe the current
23 and future use of methods for determining an acceptable
24 level of success as recommended by the study under sub-
25 section (a).

1 (d) DEFINITIONS.—In this section:

2 (1) DIRECTOR.—The term “Director” means
3 the Director of the Office of Science and Technology
4 Policy.

5 (2) PROGRAM ACTIVITY.—The term “program
6 activity” has the meaning given that term by section
7 1115(f)(6) of title 31, United States Code.

8 (3) INDEPENDENT MERIT-BASED EVALUA-
9 TION.—The term “independent merit-based evalua-
10 tion” means review of the scientific or technical
11 quality of research or development, conducted by ex-
12 perts who are chosen for their knowledge of sci-
13 entific and technical fields relevant to the evaluation
14 and who—

15 (A) in the case of the review of a program
16 activity, do not derive long-term support from
17 the program activity; or

18 (B) in the case of the review of a project
19 proposal, are not seeking funds in competition
20 with the proposal.

21 (e) AUTHORIZATION OF APPROPRIATIONS.—There
22 are authorized to be appropriated to carry out the study
23 required by subsection (a) \$600,000 for the 18-month pe-
24 riod beginning October 1, 2000.

1 ~~SEC. 8.~~ **SEC. 9. EFFECTIVE PERFORMANCE ASSESSMENT**
2 **PROGRAM FOR FEDERALLY-FUNDED RE-**
3 **SEARCH.**

4 (a) IN GENERAL.—Chapter 11 of title 31, United
5 States Code, is amended by adding at the end thereof the
6 following:

7 **“§ 1120. Accountability for research and develop-**
8 **ment programs**

9 “(a) IDENTIFICATION OF UNSUCCESSFUL PRO-
10 GRAMS.—Based upon program performance reports for
11 each fiscal year submitted to the President under section
12 1116, the Director of the Office of Management and
13 Budget shall identify the civilian research and develop-
14 ment program activities, or components thereof, which do
15 not meet an acceptable level of success as defined in sec-
16 tion 1115(b)(1)(B). Not later than 30 days after the sub-
17 mission of the reports under section 1116, the Director
18 shall furnish a copy of a report listing the program activi-
19 ties or component identified under this subsection to the
20 President and the Congress.

21 “(b) ACCOUNTABILITY IF NO IMPROVEMENT
22 SHOWN.—For each program activity or component that
23 is identified by the Director under subsection (a) as being
24 below the acceptable level of success for 2 fiscal years in
25 a row, the head of the agency shall no later than 30 days
26 after the Director submits the second report so identifying

1 the program, submit to the appropriate congressional com-
2 mittees of jurisdiction:

3 “(1) a concise statement of the steps necessary

4 to—

5 “(A) bring such program into compliance
6 with performance goals; or

7 “(B) terminate such program should com-
8 pliance efforts fail; and

9 “(2) any legislative changes needed to put the
10 steps contained in such statement into effect.”.

11 (b) CONFORMING AMENDMENTS.—

12 (1) The chapter analysis for chapter 11 of title
13 31, United States Code, is amended by adding at
14 the end thereof the following:

“1120. Accountability for research and development programs”.

15 (2) Section 1115(f) of title 31, United States
16 Code, is amended by striking “through 1119,” and
17 inserting “through 1120”.