

103D CONGRESS  
1ST SESSION

# S. 1025

To promote technology transfer to small manufacturers by providing for engineering students to work as interns with small manufacturers, and for other purposes.

---

IN THE SENATE OF THE UNITED STATES

MAY 25 (legislative day, APRIL 19), 1993

Mr. CONRAD (for himself, Mr. BAUCUS, Mr. HARKIN, and Mr. FORD) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

---

## A BILL

To promote technology transfer to small manufacturers by providing for engineering students to work as interns with small manufacturers, 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 “Small Manufacturers’  
5       Renewal and Training Act of 1993”.

6 **SEC. 2. FINDINGS.**

7       The Congress finds that—

8               (1) a productive manufacturing sector is essen-  
9               tial to a competitive national economy;

1                         (2) small businesses are responsible for most  
2                         new job creation in the United States;

3                         (3) small manufacturers play a critical role in  
4                         maintaining the vitality of the manufacturing sector;

5                         (4) small manufacturers often do not use the  
6                         most modern production technology;

7                         (5) the barriers to the adoption of modern tech-  
8                         nology by small manufacturers include—

9                             (A) the lack of readily available sources of  
10                         information about such technology;

11                             (B) the perception that such technology is  
12                         too costly; and

13                             (C) the difficulty in attracting talented en-  
14                         gineers to work for small manufacturers; and

15                         (6) the education of engineering students often  
16                         does not expose such students to current industrial  
17                         practices, especially those of small manufacturers.

18 **SEC. 3. PURPOSE.**

19                         It is the purpose of this Act to give undergraduate  
20                         students of engineering the opportunity to work with small  
21                         manufacturing companies in order to—

22                         (1) bring knowledge of modern engineering  
23                         practices to small manufacturers, increase the rec-  
24                         ognition by small manufacturers of the importance

1 of these practices, and promote the adoption of modern engineering practices by small manufacturers;

3 (2) expose engineering students to the special environment and needs of small manufacturers, and increase the number of engineers who choose to work for small manufacturers;

7 (3) encourage engineering colleges to devote greater attention to the needs of small manufacturers; and

10 (4) promote the development and expansion of a community of technological entrepreneurs in the small manufacturing sector.

13 **SEC. 4. DEFINITIONS.**

14 For the purposes of this Act—

15 (1) the term “cooperative education program” means a program of cooperative education as such term is defined in section 801(b) of the Higher Education Act of 1965 that is accredited by a nationally recognized accrediting agency or association;

20 (2) the term “Director” means the Director of the National Institute of Standards and Technology;

22 (3) the term “engineering student” means a student enrolled in a program (that is accredited by a nationally recognized accrediting agency or association) at a college or university leading to a bach-

1       elor of science degree in engineering, mathematics or  
2       science, or an equivalent degree;

3               (4) the term “host company” means a small  
4       manufacturer that hosts an intern under this Act;

5               (5) the term “Secretary” means the Secretary  
6       of Commerce;

7               (6) the term “small manufacturer” means a  
8       company employing 500 or fewer employees engaged  
9       in manufacturing, mining, construction, transpor-  
10      tation, communication, or public utilities as defined  
11      in the Standard Industrial Classification Manual of  
12      1987;

13               (7) the term “underrepresented group” means  
14       a group of individuals who have been historically  
15       underrepresented in the engineering professions, in-  
16       cluding women, blacks, hispanics, and native Ameri-  
17       cans; and

18               (8) the term “United States” means each of the  
19       50 States, the District of Columbia, the Common-  
20      wealth of Puerto Rico, the United States Virgin Is-  
21      lands, Guam, American Samoa, the Commonwealth  
22      of Northern Mariana Islands, the Republic of the  
23      Marshal Islands, the Federated State of Micronesia,  
24      and the Republic of Palau.

1   **SEC. 5. ESTABLISHMENT OF THE SMART PROGRAM.**

2       (a) SMART PROGRAM ESTABLISHED.—

3               (1) IN GENERAL.—The Director shall carry out  
4               a program of awarding grants to manufacturing out-  
5               reach centers to enable such centers to carry out in-  
6               ternship activities in accordance with this Act. Such  
7               program shall be known as the “Small Manufactur-  
8               ers Renewal and Training Program” (hereafter in  
9               this Act referred to as the “SMART Program”).

10               (2) ELIGIBLE ENTITIES.—For the purpose of  
11               this Act the term “manufacturing outreach center”  
12               means an organization engaged in technology or  
13               manufacturing extension activities, including a Fed-  
14               eral, State, or local government agency or labora-  
15               tory, a small business development center, an office  
16               within a college or university, a professional society,  
17               a worker organization, an industrial organization, or  
18               a for-profit or nonprofit organization.

19       (b) GRANT DURATION AND RENEWAL.—

20               (1) GRANT DURATION.—Grants under this Act  
21               shall be awarded on a multiyear basis for not more  
22               than 3 years.

23               (2) RENEWAL.—Grants under this Act may be  
24               renewed on a multiyear basis for not more than 5  
25               years per renewal.

1       (c) PRIORITY.—In awarding grants under this Act  
2 the Director shall give a priority to a grant proposal de-  
3 scribing internships that place engineering students with  
4 small manufacturers that employ 100 or fewer individuals.

5       (d) FUNDING LIMITATIONS.—

6           (1) OUTREACH.—Not more than 35 percent of  
7 the grant funds awarded to a manufacturing out-  
8 reach center in the first 3 years that such center re-  
9 ceives assistance under this Act shall be expended  
10 for outreach activities to solicit the participation of  
11 small manufacturers in the SMART Program. In  
12 subsequent years such percentage may be altered for  
13 grants that are renewed, subject to approval by the  
14 Secretary.

15           (2) MINIMUM.—The Director shall award  
16 grants under this Act so that a manufacturing out-  
17 reach center or centers in each State receives a  
18 grant equal to 1 percent of the amount appropriated  
19 pursuant to section 11 or \$200,000, whichever is  
20 less.

21 **SEC. 6. FEDERAL ROLE.**

22       (a) ROLE OF THE DIRECTOR.—

23           (1) IN GENERAL.—In carrying out the SMART  
24 Program the Director shall—

(A) solicit and evaluate grant proposals from manufacturing outreach centers;

(B) collect information regarding the performance of the SMART Program, including an annual report from each manufacturing outreach center in accordance with section 7(a)(5); and

(C) coordinate the activities of the SMART Program with other programs of the Federal Government for manufacturing and technology extension, as appropriate.

(2) ADMINISTRATIVE PROVISIONS.—The Direc-

---

(A) is authorized to hire such staff as the Director determines necessary to administer the SMART Program; and

(B) shall use not more than \$500,000 or 5 percent of the funds appropriated pursuant to the authority of section 11, whichever is less, for the administrative expenses associated with the SMART Program.

(b) ROLE OF SECRETARY.—

(1) ESTABLISHMENT OF GRANT PROPOSAL CRITERIA; PREFERENCES.—The Secretary shall establish criteria for evaluating proposals for grants

1 under this Act, which criteria shall include a preference  
2 for proposals that describe programs which—

3 (A) bring together organizations with demonstrated  
4 commitments to—

5 (i) outreach to small manufacturers;  
6 and

7 (ii) cooperative education;

8 (B) serve regions with low economic  
9 growth and regions where the manufacturing  
10 sector is weak; and

11 (C) in the case of renewal grants, have  
12 demonstrated success in placing interns with  
13 small manufacturers, particularly small manufacturers  
14 that employ 100 or fewer employees.

15 (2) EVALUATION.—The Secretary shall provide  
16 a report to Congress evaluating the SMART Program  
17 3 years after the date of enactment of this Act  
18 and at 5-year intervals thereafter.

19 **SEC. 7. ROLE OF MANUFACTURING OUTREACH CENTERS.**

20 (a) IN GENERAL.—Each manufacturing outreach  
21 center receiving a grant under this Act shall use such  
22 grant funds—

23 (1) to support outreach activities that solicit the  
24 participation of small manufacturers in the SMART

1       Program and determine the eligibility of small man-  
2       ufacturers to serve as host companies;

3               (2) to solicit and select engineering students to  
4       participate in the SMART Program on the basis of  
5       the ability and interest of each student in working  
6       with a small manufacturer;

7               (3) to assist in placing selected engineering stu-  
8       dents with host companies as interns;

9               (4) to carry out an internship program that—

10                       (A) sponsors engineering students for em-  
11       ployment as interns with host companies;

12                       (B) provides funding to host companies—

13                               (i) that is used to supplement the  
14       wage of an intern by paying the Federal  
15       share of such intern's wages, which Fed-  
16       eral share shall not exceed the amount  
17       paid to an employee earning the Federal  
18       minimum wage for a period of not less  
19       than 3 months and not more than 6  
20       months;

21                               (ii) the total amount of which does  
22       not exceed the amount paid to an employee  
23       earning the Federal minimum wage during  
24       the 24-month period preceding the receipt  
25       of such grant; and

8                         (5) to collect information from interns, from  
9 host companies, and from other sources, and use  
10 such information to provide annual reports to the  
11 Director in accordance with section 6(a)(1)(B); and

12                             (6) to provide such training and information to  
13                             interns regarding modern manufacturing tech-  
14                             nologies as the Director determines appropriate.

15 (b) PLACEMENT PRIORITY.—Each manufacturing  
16 outreach center receiving a grant under this Act shall give  
17 a preference to placing interns with host companies that  
18 employ 100 or fewer employees.

19       (c) PROPOSALS REQUIRED.—Each manufacturing  
20 outreach center desiring a grant under this Act shall sub-  
21 mit a proposal to the Secretary at such time, in such man-  
22 ner, and accompanied by such information, as the Sec-  
23 retary may reasonably require. Each such proposal shall  
24 describe the activities and services for which assistance is  
25 sought.

1       (d) COOPERATIVE EDUCATION PROGRAM ARRANGE-  
2 MENTS.—A manufacturing outreach center may make ar-  
3 rangements with cooperative education programs to pro-  
4 vide an engineering student with cooperative education  
5 work experience pursuant to this Act under which the en-  
6 gineering student—

7                 (1) performs the outreach activities described in  
8 subsection (a)(1);  
9                 (2) participates in an internship program in ac-  
10 cordance with subsection (a)(4); and  
11                 (3) may perform technology extension services  
12 for the manufacturing outreach center.

13 **SEC. 8. ROLE OF HOST COMPANIES.**

14 A host company—

15                 (1) shall only be eligible to host interns in man-  
16 ufacturing operations in the United States;

17                 (2) shall provide such employment-related bene-  
18 fits to interns under this Act as are provided to full-  
19 time employees of the host company, except that  
20 health insurance may be provided by the college or  
21 university in which the intern is enrolled;

22                 (3) shall use the funds provided by a manufac-  
23 turing outreach center under this Act only to pay  
24 the wages of interns, and may supplement those  
25 wages;

1                         (4) shall be eligible to receive funds from a  
2 manufacturing outreach center only if such host  
3 company has not participated in a cooperative edu-  
4 cation program;

5                         (5) shall provide to the manufacturing outreach  
6 center information on wages and benefits provided to  
7 interns, including the expenditure of any funds pro-  
8 vided by such center; and

9                         (6) shall designate a supervisor for each intern,  
10 who shall—

11                             (A) oversee the employment of that intern;

12                             (B) provide to such center a brief evalua-  
13                             tion of the performance of that intern; and

14                             (C) provide to such center a brief evalua-  
15                             tion of the value of the host company's partici-

16                             pation in the SMART Program.

17 **SEC. 9. ROLE OF INTERNS.**

18                         Each intern shall—

19                             (1) work as an employee for the host company;

20                             and

21                             (2) provide a brief evaluation of the internship  
22                             to the manufacturing outreach center.

1   **SEC. 10. UNDERREPRESENTED GROUPS.**

2       The Director shall make every effort to solicit for par-  
3 ticipation in the SMART Program qualified engineering  
4 students from underrepresented groups by—

- 5             (1) soliciting the participation of traditionally  
6 minority and women's engineering colleges and uni-  
7 versities; and  
8             (2) encouraging all manufacturing outreach  
9 centers to solicit the participation of qualified engi-  
10 neering, mathematics or science students from  
11 underrepresented groups.

12   **SEC. 11. AUTHORIZATION.**

13       There are authorized to be appropriated \$10,000,000  
14 for fiscal year 1994, and \$25,000,000 for each of the fis-  
15 cal years 1995, 1996, 1997, and 1998, to carry out this  
16 Act.

○