

113TH CONGRESS  
1ST SESSION

# S. 1468

To require the Secretary of Commerce to establish the Network for  
Manufacturing Innovation and for other purposes.

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IN THE SENATE OF THE UNITED STATES

AUGUST 1, 2013

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

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## A BILL

To require the Secretary of Commerce to establish the Net-  
work for Manufacturing Innovation and for other pur-  
poses.

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 “Revitalize American  
5 Manufacturing and Innovation Act of 2013”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

8 (1) In 2011, manufacturing contributed  
9 \$1,800,000,000,000 to the Nation’s economy and

1       accounted for 47 percent of all United States ex-  
2       ports.

3               (2) If ranked as its own country, the United  
4       States manufacturing sector would be the 10th larg-  
5       est economy in the world.

6               (3) American manufacturers employ more than  
7       11,000,000,000 Americans in jobs with wages and  
8       benefits that are one-third higher than the wages  
9       and benefits in other sectors.

10              (4) Manufacturing has the highest multiplier ef-  
11       fect, with every dollar in final sales of manufactured  
12       products resulting in \$1.34 in output from other sec-  
13       tors.

14              (5) As the source of nearly one-third of the  
15       United States investment in research and develop-  
16       ment manufacturing, firms drive innovation in the  
17       United States.

18              (6) Countries such as Korea, Japan, and Ger-  
19       many have a larger share of the advanced manufac-  
20       turing sector than the United States. Each of these  
21       countries has a positive trade balance in advanced  
22       manufacturing products. In contrast, the United  
23       States had an \$81,000,000,000 trade deficit in  
24       2010.

1           (7) The United States share of research and  
2           development spending dropped from 43.1 percent in  
3           1998 to 37.3 percent in 2008, while China’s share  
4           of research and development spending increased  
5           from 3 percent to 11.4 percent during the same pe-  
6           riod.

7           (8) According to a survey by the Council on  
8           Competitiveness, chief executive officers view the  
9           quality and availability of scientists, researchers, and  
10          engineers and the quality and availability of skilled  
11          production workers as the first and second most im-  
12          portant drivers of competitiveness.

13          (9) According to the Organization for Economic  
14          Co-Operation and Development, the United States  
15          ranked 27th out of 29 developed countries in the  
16          percentage of students who earned bachelor’s de-  
17          grees in science and engineering in 2009.

18          (10) Colleges in China and India award more 4-  
19          year engineering bachelor’s degrees than United  
20          States colleges.

21 **SEC. 3. ESTABLISHMENT OF NETWORK FOR MANUFAC-**  
22 **TURING INNOVATION.**

23          The National Institute of Standards and Technology  
24          Act (15 U.S.C. 271 et seq.) is amended—

1 (1) by redesignating section 34 as section 35;

2 and

3 (2) by inserting after section 33 (15 U.S.C.

4 278r) the following:

5 **“SEC. 34. NETWORK FOR MANUFACTURING INNOVATION.**

6 “(a) ESTABLISHMENT OF NETWORK FOR MANUFAC-  
7 TURING INNOVATION PROGRAM.—

8 “(1) IN GENERAL.—The Secretary of Com-  
9 merce shall establish within the Institute a program  
10 to be known as the ‘Network for Manufacturing In-  
11 novation Program’ (referred to in this section as the  
12 ‘Program’).

13 “(2) PURPOSES OF PROGRAM.—The purposes of  
14 the Program are—

15 “(A) to improve the competitiveness of  
16 United States manufacturing and to increase  
17 domestic production;

18 “(B) to stimulate United States leadership  
19 in advanced manufacturing research, innova-  
20 tion, and technology;

21 “(C) to facilitate the transition of innova-  
22 tive technologies into scalable, cost-effective,  
23 and high-performing manufacturing capabili-  
24 ties;

1           “(D) to facilitate access by manufacturing  
2 enterprises to capital-intensive infrastructure,  
3 including high-performance computing, in order  
4 to improve the speed with which such enter-  
5 prises commercialize new processes and tech-  
6 nologies;

7           “(E) to accelerate the development of an  
8 advanced manufacturing workforce;

9           “(F) to facilitate peer exchange of and the  
10 documentation of best practices in addressing  
11 advanced manufacturing challenges; and

12           “(G) to leverage non-Federal sources of  
13 support to promote a stable and sustainable  
14 business model without the need for long-term  
15 Federal funding.

16           “(3) SUPPORT.—The Secretary, acting through  
17 the Director, shall carry out the purposes set forth  
18 in paragraph (2) by supporting—

19           “(A) the Network for Manufacturing Inno-  
20 vation established under subsection (b); and

21           “(B) the establishment of centers for man-  
22 ufacturing innovation.

23           “(4) DIRECTOR.—The Secretary shall carry out  
24 the Program through the Director.

1 “(b) ESTABLISHMENT OF NETWORK FOR MANUFAC-  
2 TURING INNOVATION.—

3 “(1) IN GENERAL.—As part of the Program,  
4 the Secretary of Commerce shall establish a network  
5 of centers for manufacturing innovation.

6 “(2) DESIGNATION.—The network established  
7 under paragraph (1) shall be known as the ‘Network  
8 for Manufacturing Innovation’ (referred to in this  
9 section as the ‘Network’).

10 “(c) CENTERS FOR MANUFACTURING INNOVATION.—

11 “(1) IN GENERAL.—For purposes of this sec-  
12 tion, a ‘center for manufacturing innovation’ is a  
13 center that—

14 “(A) has been established by a person to  
15 address challenges in advanced manufacturing  
16 and to assist manufacturers in retaining or ex-  
17 panding industrial production and jobs in the  
18 United States;

19 “(B) has a predominant focus on a manu-  
20 facturing process, novel material, enabling tech-  
21 nology, supply chain integration methodology,  
22 or another relevant aspect of advanced manu-  
23 facturing, as determined by the Secretary, with  
24 the potential—

1 “(i) to improve the competitiveness of  
2 United States manufacturing;

3 “(ii) to accelerate investment in ad-  
4 vanced manufacturing production capacity  
5 in the United States; and

6 “(iii) to enable the commercial appli-  
7 cation of new technologies or industry-wide  
8 manufacturing processes; and

9 “(C) includes active participation among  
10 representatives from multiple industrial entities,  
11 research universities, community colleges, and  
12 such other entities as the Secretary considers  
13 appropriate, which may include career and tech-  
14 nical education schools, Federal laboratories,  
15 State, local, and tribal governments, businesses,  
16 educational institutions, and nonprofit organiza-  
17 tions.

18 “(2) ACTIVITIES.—Activities of a center for  
19 manufacturing innovation may include the following:

20 “(A) Research, development, and dem-  
21 onstration projects, including proof-of-concept  
22 development and prototyping, to reduce the  
23 cost, time, and risk of commercializing new  
24 technologies and improvements in existing tech-  
25 nologies, processes, products, and research and

1 development of materials to solve pre-competi-  
2 tive industrial problems with economic or na-  
3 tional security implications.

4 “(B) Development and implementation of  
5 education and training courses, materials, and  
6 programs.

7 “(C) Development of innovative methodolo-  
8 gies and practices for supply chain integration  
9 and introduction of new technologies into sup-  
10 ply chains.

11 “(D) Outreach and engagement with  
12 small- and medium-sized manufacturing enter-  
13 prises, in addition to large manufacturing en-  
14 terprises.

15 “(E) Such other activities as the Sec-  
16 retary, in consultation with Federal depart-  
17 ments and agencies whose missions contribute  
18 to or are affected by advanced manufacturing,  
19 considers consistent with the purposes described  
20 in subsection (a)(2).

21 “(3) ADDITIONAL CENTERS FOR MANUFAC-  
22 TURING INNOVATION.—The National Additive Man-  
23 ufacturing Innovation Institute and pending manu-  
24 facturing centers under interagency review shall be  
25 considered centers for manufacturing innovation.



1       “(d) FINANCIAL ASSISTANCE TO ESTABLISH AND  
2 SUPPORT CENTERS FOR MANUFACTURING INNOVA-  
3 TION.—

4           “(1) IN GENERAL.—In carrying out the Pro-  
5 gram, the Secretary of Commerce shall award finan-  
6 cial assistance to a person to assist the person in  
7 planning, establishing, or supporting a center for  
8 manufacturing innovation.

9           “(2) APPLICATION.—A person seeking financial  
10 assistance under paragraph (1) shall submit to the  
11 Secretary an application therefor at such time, in  
12 such manner, and containing such information as  
13 the Secretary may require.

14           “(3) OPEN PROCESS.—In soliciting applications  
15 for financial assistance under paragraph (1), the  
16 Secretary shall ensure an open process that will  
17 allow for the consideration of all applications rel-  
18 evant to advanced manufacturing regardless of tech-  
19 nology area.

20           “(4) SELECTION.—

21           “(A) COMPETITIVE, MERIT REVIEW.—In  
22 awarding financial assistance under paragraph  
23 (1), the Secretary shall use a competitive, merit  
24 review process.

1           “(B) COLLABORATION.—In awarding fi-  
2 nancial assistance under paragraph (1), the  
3 Secretary shall, acting through the National  
4 Program Office established under subsection  
5 (e)(1), collaborate with Federal departments  
6 and agencies whose missions contribute to or  
7 are affected by advanced manufacturing.

8           “(C) CONSIDERATIONS.—In selecting a  
9 person who submitted an application under  
10 paragraph (2) for an award of financial assist-  
11 ance under paragraph (1) the Secretary shall  
12 consider, at a minimum, the following:

13           “(i) The potential of the center for  
14 manufacturing innovation to advance do-  
15 mestic manufacturing and the likelihood of  
16 economic impact in the predominant focus  
17 areas of the center for manufacturing in-  
18 novation.

19           “(ii) The commitment of continued fi-  
20 nancial support, advice, participation, and  
21 other contributions from non-Federal  
22 sources, to provide leverage and resources  
23 to promote a stable and sustainable busi-  
24 ness model without the need for long-term  
25 Federal funding.

1           “(iii) How the center for manufac-  
2           turing innovation will engage with small-  
3           and medium-sized manufacturing enter-  
4           prises, to improve the capacity of such en-  
5           terprises to commercialize new processes  
6           and technologies.

7           “(iv) How the center for manufac-  
8           turing innovation will carry out educational  
9           and workforce activities that meet indus-  
10          trial needs related to the predominant  
11          focus areas of the center for manufac-  
12          turing innovation.

13          “(v) How the center for manufac-  
14          turing innovation will advance economic  
15          competitiveness.

16          “(vi) How the center for manufac-  
17          turing innovation will strengthen and lever-  
18          age the assets of a region.

19          “(5) LIMITATION ON PERIOD FOR AWARDS.—  
20          No award of financial assistance may be made under  
21          paragraph (1) to a center of manufacturing innova-  
22          tion after the 7-year period beginning on the date on  
23          which the Secretary first awards financial assistance  
24          to a center under such paragraph.

25          “(e) NATIONAL PROGRAM OFFICE.—

1           “(1) ESTABLISHMENT.—The Secretary of Com-  
2 merce shall establish, within the Institute, the Na-  
3 tional Office of the Network for Manufacturing In-  
4 novation Program (referred to in this section as the  
5 ‘National Program Office’), which shall oversee and  
6 carry out the Program.

7           “(2) FUNCTIONS.—The functions of the Na-  
8 tional Program Office are—

9                   “(A) to oversee the planning, management,  
10 and coordination of the Program;

11                   “(B) to enter into memorandums of under-  
12 standing with Federal departments and agen-  
13 cies, whose missions contribute to or are af-  
14 fected by advanced manufacturing, to carry out  
15 the purposes described in subsection (a)(2);

16                   “(C) to develop, not later than 1 year after  
17 the date of the enactment of the Revitalize  
18 American Manufacturing and Innovation Act of  
19 2013, and update not less frequently than once  
20 every 3 years thereafter, a strategic plan to  
21 guide the Program;

22                   “(D) to establish such procedures, proc-  
23 esses, and criteria as may be necessary and ap-  
24 propriate to maximize cooperation and coordi-  
25 nate the activities of the Program with pro-

1           grams and activities of other Federal depart-  
2           ments and agencies whose missions contribute  
3           to or are affected by advanced manufacturing;

4           “(E) to establish a clearinghouse of public  
5           information related to the activities of the Pro-  
6           gram; and

7           “(F) to act as a convener of the Network.

8           “(3) RECOMMENDATIONS.—In developing and  
9           updating the strategic plan under paragraph (2)(C),  
10          the Secretary shall solicit recommendations and ad-  
11          vice from a wide range of stakeholders, including in-  
12          dustry, small- and medium-sized manufacturing en-  
13          terprises, research universities, community colleges,  
14          and other relevant organizations and institutions.

15          “(4) REPORT TO CONGRESS.—The Secretary  
16          shall transmit the strategic plan required under  
17          paragraph (2)(C) to the Committee on Commerce,  
18          Science, and Transportation of the Senate and the  
19          Committee on Science, Space, and Technology of the  
20          House of Representatives.

21          “(5) HOLLINGS MANUFACTURING EXTENSION  
22          PARTNERSHIP.—The Secretary shall ensure that the  
23          National Program Office incorporates the Hollings  
24          Manufacturing Extension Partnership into Program

1 planning to ensure that the results of the Program  
2 reach small- and medium-sized entities.

3 “(6) DETAILEES.—Any Federal Government  
4 employee may be detailed to the National Program  
5 Office without reimbursement. Such detail shall be  
6 without interruption or loss of civil service status or  
7 privilege.

8 “(f) REPORTING AND AUDITING.—

9 “(1) ANNUAL REPORTS TO THE SECRETARY.—

10 “(A) IN GENERAL.—The Secretary of  
11 Commerce shall require recipients of financial  
12 assistance under subsection (d)(1) to annually  
13 submit a report to the Secretary that describes  
14 the finances and performance of the center for  
15 manufacturing innovation for which such assist-  
16 ance was awarded.

17 “(B) ELEMENTS.—Each report submitted  
18 under subparagraph (A) shall include—

19 “(i) an accounting of expenditures of  
20 amounts awarded to the recipient under  
21 subsection (d)(1); and

22 “(ii) a description of the performance  
23 of the center for manufacturing innovation  
24 with respect to—

1                   “(I) its goals, plans, financial  
2                   support, and accomplishments; and

3                   “(II) how the center for manu-  
4                   facturing innovation has furthered the  
5                   purposes described in subsection  
6                   (a)(2).

7                   “(2) ANNUAL REPORTS TO CONGRESS.—

8                   “(A) IN GENERAL.—Not less frequently  
9                   than once each year, the Secretary shall submit  
10                  a report to Congress that describes the per-  
11                  formance of the Program during the most re-  
12                  cent 1-year period.

13                  “(B) ELEMENTS.—Each report submitted  
14                  under subparagraph (A) shall include, for the  
15                  period covered by the report—

16                         “(i) a summary and assessment of the  
17                         reports received by the Secretary under  
18                         paragraph (1);

19                         “(ii) an accounting of the funds ex-  
20                         pended by the Secretary under the Pro-  
21                         gram; and

22                         “(iii) an assessment of the Program  
23                         with respect to the purposes described in  
24                         subsection (a)(2).

25                   “(3) TRIENNIAL ASSESSMENT BY GAO.—

1           “(A) IN GENERAL.—Not less frequently  
2 than once every 3 years, the Comptroller Gen-  
3 eral of the United States shall submit to Con-  
4 gress an assessment of the operation of the  
5 Program during the most recent 3-year period.

6           “(B) ELEMENTS.—Each assessment sub-  
7 mitted under subparagraph (A) shall include,  
8 for the period covered by the report—

9                   “(i) a review of the management, co-  
10 ordination, and industry utility of the Pro-  
11 gram;

12                   “(ii) an assessment of the extent to  
13 which the Program has furthered the pur-  
14 poses described in subsection (a)(2); and

15                   “(iii) such recommendations for legis-  
16 lative and administrative action as the  
17 Comptroller General considers appropriate  
18 to improve the Program.

19           “(g) ADDITIONAL AUTHORITIES.—

20                   “(1) APPOINTMENT OF PERSONNEL AND CON-  
21 TRACTS.—The Secretary of Commerce may appoint  
22 such personnel and enter into such contracts, finan-  
23 cial assistance agreements, and other agreements as  
24 the Secretary considers necessary or appropriate to  
25 carry out the Program including support for re-



1 search and development activities involving a center  
2 for manufacturing innovation.

3 “(2) TRANSFER OF FUNDS.—The Secretary  
4 may transfer to other Federal agencies such sums as  
5 the Secretary considers necessary or appropriate to  
6 carry out the Program.

7 “(3) AUTHORITY OF OTHER AGENCIES.—In the  
8 event that the Secretary exercises the authority to  
9 transfer funds to another agency under paragraph  
10 (2), such agency may award and administer all as-  
11 pects of financial assistance awards under this sec-  
12 tion.

13 “(4) USE OF RESOURCES.—In furtherance of  
14 the purposes of the Program, the Secretary may use,  
15 with the consent of a covered entity and with or  
16 without reimbursement, the land, services, equip-  
17 ment, personnel, and facilities of such covered entity.

18 “(5) ACCEPTANCE OF RESOURCES.—In addition  
19 to amounts appropriated to carry out the Program,  
20 the Secretary may accept funds, services, equipment,  
21 personnel, and facilities from any covered entity to  
22 carry out the Program.

23 “(6) COVERED ENTITY.—For purposes of this  
24 subsection, a covered entity is any Federal depart-  
25 ment, Federal agency, instrumentality of the United

1 States, State, local government, tribal government,  
2 Territory or possession of the United States, or of  
3 any political subdivision thereof, or international or-  
4 ganization, or any public or private entity or indi-  
5 vidual.

6 “(h) PATENTS.—Chapter 18 of title 35, United  
7 States Code, shall not apply if financial assistance is  
8 awarded under this section solely for the purpose of plan-  
9 ning, establishing, or supporting new or existing centers  
10 for manufacturing innovation.

11 “(i) FUNDING.—

12 “(1) NETWORK FOR MANUFACTURING INNOVA-  
13 TION FUND.—

14 “(A) ESTABLISHMENT.—There is estab-  
15 lished in the Treasury of the United States a  
16 fund to be known as the ‘Network for Manufac-  
17 turing Innovation Fund’ (referred to in this  
18 paragraph as the ‘Fund’).

19 “(B) ELEMENTS.—There shall be depos-  
20 ited in the Fund, which shall constitute the as-  
21 sets of the Fund, amounts appropriated or oth-  
22 erwise made available to carry out the Program.

23 “(C) AVAILABILITY.—Amounts deposited  
24 in the Fund shall be available to the Secretary  
25 of Commerce, at the discretion of the Secretary,

1 or the Secretary's delegee, to carry out the Pro-  
2 gram without further appropriation and without  
3 fiscal year limitation.

4 “(2) AUTHORIZATION OF APPROPRIATIONS.—  
5 There is authorized to be appropriated  
6 \$600,000,000 to the Secretary of Commerce to carry  
7 out this section.

8 “(3) ADMINISTRATIVE EXPENSES.—The Sec-  
9 retary of Commerce may use not more than 5 per-  
10 cent of the amounts appropriated pursuant to para-  
11 graph (2) to pay the salaries, expenses, and other  
12 administrative costs incurred by the Secretary under  
13 this section.

14 “(4) RESCISSION.—There is hereby rescinded,  
15 from appropriated discretionary funds that remain  
16 available for obligation as of the date of the enact-  
17 ment of this Act, \$600,000,000.”.

18 **SEC. 4. REPORT.**

19 (a) DEFINED TERM.—In this section, the term “rare  
20 earth monopoly” means the domination of the market for  
21 rare earth elements, including—

22 (1) rare earth oxides, metals, alloys, and  
23 magnets;

24 (2) integrated systems that include rare earth  
25 components, including wind turbines, motors, and

1 catalysts for green technology lighting and transpor-  
2 tation in commercial products; and

3 (3) oxide, metal, or alloy-based rare earth mate-  
4 rials, magnets, components and systems for guided  
5 ordinance, stealth and drone technologies, interro-  
6 gating and targeting lasers, radar, sonar, and weap-  
7 ons systems used by the United States military.

8 (b) SURVEY.—The Secretary of Commerce shall con-  
9 duct a survey that—

10 (1) measures the economic impact of China’s  
11 rare earth monopoly on the United States and other  
12 affected nations to determine the magnitude of eco-  
13 nomic and intellectual property loss resulting from  
14 China’s rare earth monopoly; and

15 (2) looks beyond gross economic figures of  
16 value added goods and identifies specific tech-  
17 nologies, industries, and defense systems that are  
18 now primarily produced in, or are likely to relocate  
19 or migrate to, China.

20 (c) REPORT.—Not later than 1 year after the date  
21 of the enactment of this Act, the Secretary of Commerce  
22 shall submit a report to Congress that contains the results  
23 of the survey conducted under subsection (a). The report  
24 shall contain recommendations on how the United States  
25 should—

1           (1) initiate direct dialogue with affected nations  
2           to assess the short- and long-term economic con-  
3           sequences of China's rare earth monopoly and re-  
4           lated trade practices; and

5           (2) promote cooperative resolutions to facilitate  
6           partnership structures that will offset imbalances  
7           caused by China's rare earth monopoly.

○