## [STAFF WORKING DRAFT]

APRIL 4, 2014

AMENDMENT NO	Calendar No
Purpose: In the nature of a subs	titute.
IN THE SENATE OF THE UNITED	STATES—113th Cong., 2d Sess.
S. 14	68
To require the Secretary of Conwork for Manufacturing Imposes.	mmerce to establish the Net- movation and for other pur-
Referred to the Committee on ordered to b	e printed and
Ordered to lie on the ta	ble and to be printed
AMENDMENT IN THE NATURE to be proposed b	
Viz:	
1 Strike all after the enac	ting clause and insert the fol-
2 lowing:	
3 SECTION 1. SHORT TITLE.	
4 This Act may be cited	as the "Revitalize American
5 Manufacturing and Innovation	on Act of 2014".
6 SEC. 2. FINDINGS.	
7 Congress finds the follow	wing:
8 (1) In 2011,	manufacturing contributed
9 \$1,800,000,000,000 to	the Nation's economy and

	2
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

goods with advanced technology products in 2013.

24

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	(a) In General.—The National Institute of Stand-
24	ards and Technology Act (15 U.S.C. 271 et seq.) is
25	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 measurably the competi-
16	tiveness of United States manufacturing and to
17	increase domestic production;
18	"(B) to stimulate United States leadership
19	in advanced manufacturing research, innova-
20	tion, and technology that has a strong potential
21	to generate substantial benefits to the Nation
22	that extend significantly beyond the direct re-
23	turn to participants in the Program;
24	"(C) to facilitate the transition of innova-
25	tive and transformative technologies into scal-

1	able, cost-effective, and high-performing manu-
2	facturing capabilities;
3	"(D) to facilitate access by manufacturing
4	enterprises to capital-intensive infrastructure,
5	including high-performance computing, in order
6	to improve the speed with which such enter-
7	prises commercialize new processes and tech-
8	nologies;
9	"(E) to accelerate measurably the develop-
10	ment of an advanced manufacturing workforce;
11	"(F) to facilitate peer exchange of and the
12	documentation of best practices in addressing
13	advanced manufacturing challenges; and
14	"(G) to leverage non-Federal sources of
15	support to promote a stable and sustainable
16	business model without the need for long-term
17	Federal funding.
18	"(3) Support.—The Secretary, acting through
19	the Director, shall carry out the purposes set forth
20	in paragraph (2) by supporting—
21	"(A) the Network for Manufacturing Inno-
22	vation established under subsection (b); and
23	"(B) the establishment of centers for man-
24	ufacturing innovation.

1	"(4) DIRECTOR.—The Secretary shall carry out
2	the Program through the Director.
3	"(b) Establishment of Network for Manufac-
4	TURING INNOVATION.—
5	"(1) In general.—As part of the Program,
6	the Secretary of Commerce shall establish a network
7	of centers for manufacturing innovation.
8	"(2) Designation.—The network established
9	under paragraph (1) shall be known as the 'Network
10	for Manufacturing Innovation' (referred to in this
11	section as the 'Network').
12	"(c) Centers for Manufacturing Innovation.—
13	"(1) In general.—For purposes of this sec-
14	tion, a 'center for manufacturing innovation' is a
15	center that—
16	"(A) has been established by a person or
17	group of persons to address challenges in ad-
18	vanced manufacturing and to assist manufac-
19	turers in retaining or expanding industrial pro-
20	duction and jobs in the United States;
21	"(B) has a predominant focus on a manu-
22	facturing process, novel material, enabling tech-
23	nology, supply chain integration methodology,
24	or another relevant aspect of advanced manu-

1	facturing, as determined by the Secretary, with
2	the potential—
3	"(i) to improve the competitiveness of
4	United States manufacturing;
5	"(ii) to accelerate non-Federal invest-
6	ment in advanced manufacturing produc-
7	tion capacity in the United States;
8	"(iii) to increase measurably the non-
9	Federal investment in advanced manufac-
10	turing research; and
11	"(iv) to enable the commercial appli-
12	cation of new technologies or industry-wide
13	manufacturing processes; and
14	"(C) includes active participation among
15	representatives from multiple industrial entities,
16	research universities, community colleges, and
17	such other entities as the Secretary considers
18	appropriate, which may include industry-led
19	consortia, career and technical education
20	schools, Federal laboratories, State, local, and
21	tribal governments, businesses, educational in-
22	stitutions, and nonprofit organizations.
23	"(2) Activities.—Activities of a center for
24	manufacturing innovation may include the following:

1	"(A) Research, development, and dem-
2	onstration projects, including proof-of-concept
3	development and prototyping, to reduce the
4	cost, time, and risk of commercializing new
5	technologies and improvements in existing tech-
6	nologies, processes, products, and research and
7	development of materials to solve pre-competi-
8	tive industrial problems with economic or na-
9	tional security implications.
10	"(B) Development and implementation of
11	education and training courses, materials, and
12	programs.
13	"(C) Development of innovative methodolo-
14	gies and practices for supply chain integration
15	and introduction of new technologies into sup-
16	ply chains.
17	"(D) Development or updating of industry-
18	led, shared-vision technology roadmaps for the
19	development of technologies underpinning next-
20	generation or transformational innovations.
21	"(E) Outreach and engagement with small-
22	and medium-sized manufacturing enterprises, in
23	addition to large manufacturing enterprises.
24	"(F) Such other activities as the Secretary,
25	in consultation with Federal departments and

1	agencies whose missions contribute to or are af-
2	fected by advanced manufacturing, considers
3	consistent with the purposes described in sub-
4	section (a)(2).
5	"(3) Additional centers for manufac-
6	TURING INNOVATION.—
7	"(A) IN GENERAL.—The National Additive
8	Manufacturing Innovation Institute and manu-
9	facturing centers formally recognized or under
10	pending interagency review on the date of en-
11	actment of the Revitalize American Manufac-
12	turing and Innovation Act of 2014 shall be con-
13	sidered centers for manufacturing innovation,
14	but such centers shall not receive any pref-
15	erence for financial assistance under subsection
16	(d) solely on the basis of being considered cen-
17	ters for manufacturing innovation under this
18	paragraph.
19	"(B) NETWORK PARTICIPATION.—A manu-
20	facturing center that is substantially similar to
21	those established under this subsection but that
22	does not receive financial assistance under sub-
23	section (d) may, upon request of the center, be
24	recognized as a center by the Secretary for pur-
25	poses of participation in the Network.

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. The application shall, at
14	a minimum, describe the specific sources and
15	amounts of non-Federal financial support for the
16	center on the date financial assistance is sought, as
17	well as the anticipated sources and amounts of non-
18	Federal financial support during the period for
19	which the center could be eligible for continued Fed-
20	eral financial assistance under this section.
21	"(3) Open process.—In soliciting applications
22	for financial assistance under paragraph (1), the
23	Secretary shall ensure an open process that will
24	allow for the consideration of all applications rel-

1	evant to advanced manufacturing regardless of tech-
2	nology area.
3	"(4) Selection.—
4	"(A) Competitive, merit review.—In
5	awarding financial assistance under paragraph
6	(1), the Secretary shall use a competitive, merit
7	review process that includes peer review by a di-
8	verse group of individuals with relevant exper-
9	tise.
10	"(B) Performance measurement,
11	TRANSPARENCY, AND ACCOUNTABILITY.—For
12	each award of financial assistance under para-
13	graph (1), the Secretary shall—
14	"(i) make publicly available at the
15	time of the award a description of the
16	bases for the award, including an expla-
17	nation of the relative merits of the winning
18	applicant as compared to other applica-
19	tions received, if applicable; and
20	"(ii) develop and implement metrics-
21	based performance measures to assess the
22	effectiveness of the activities funded.
23	"(C) Collaboration.—In awarding fi-
24	nancial assistance under paragraph (1), the
25	Secretary shall, acting through the National

1	Program Office established under subsection
2	(e)(1), collaborate with Federal departments
3	and agencies whose missions contribute to or
4	are affected by advanced manufacturing.
5	"(D) Considerations.—In selecting a
6	person who submitted an application under
7	paragraph (2) for an award of financial assist-
8	ance under paragraph (1) the Secretary shall
9	consider, at a minimum, the following:
10	"(i) The potential of the center for
11	manufacturing innovation to advance do-
12	mestic manufacturing and the likelihood of
13	economic impact in the predominant focus
14	areas of the center for manufacturing in-
15	novation.
16	"(ii) The commitment of continued fi-
17	nancial support, advice, participation, and
18	other contributions from non-Federal
19	sources, to provide leverage and resources
20	to promote a stable and sustainable busi-
21	ness model without the need for long-term
22	Federal funding.
23	"(iii) Whether the financial support
24	provided to the center from non-Federal

1	sources significantly outweighs the re-
2	quested Federal financial assistance.
3	"(iv) How the center for manufac-
4	turing innovation will increase the non-
5	Federal investment in advanced manufac-
6	turing research in the United States
7	"(v) How the center for manufac-
8	turing innovation will engage with small-
9	and medium-sized manufacturing enter-
10	prises, to improve the capacity of such en-
11	terprises to commercialize new processes
12	and technologies.
13	"(vi) How the center for manufac-
14	turing innovation will carry out educational
15	and workforce activities that meet indus-
16	trial needs related to the predominant
17	focus areas of the center for manufac-
18	turing innovation.
19	"(vii) How the center for manufac-
20	turing innovation will advance economic
21	competitiveness and generate substantial
22	benefits to the Nation that extend beyond
23	the direct return to participants in the
24	Program.

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1	"(viii) Whether the predominant focus
2	of the center for manufacturing innovation
3	is a manufacturing process, novel material,
4	enabling technology, supply chain integra-
5	tion methodology, or other relevant aspect
6	of advanced manufacturing that has not
7	already been commercialized, marketed,
8	distributed, or sold by another entity.
9	"(ix) How the center for manufac-
10	turing innovation will strengthen and lever-
11	age the assets of a region.
12	"(5) Limitations on awards.—
13	"(A) In general.—No award of financial
14	assistance may be made under paragraph (1) to
15	a center of manufacturing innovation after the
16	7-year period beginning on the date on which
17	the Secretary first awards financial assistance
18	to a center under that paragraph.
19	"(B) MATCHING FUNDS AND WEIGHTED
20	PREFERENCES.—The total Federal financial as-
21	sistance awarded to a center of manufacturing
22	innovation, including the financial assistance
23	under paragraph (1), in a given year shall not
24	exceed 50 percent of the total funding of the
25	center in that year. The Secretary may give a

1	weighted preference to applicants seeking less
2	than the maximum amount of funding allowed
3	under this paragraph.
4	"(C) Funding decrease.—The amount
5	of financial assistance provided to a center of
6	manufacturing innovation under paragraph (1)
7	shall decrease after the second year of funding
8	for a center, and shall continue to decrease
9	thereafter in each year in which financial assist-
10	ance is provided, unless the Secretary deter-
11	mines that—
12	"(i) the center is otherwise meeting
13	its stated goals and metrics under this Act;
14	"(ii) unforeseen circumstances have
15	altered the center's anticipated funding;
16	and
17	"(iii) the center can identify future
18	non-Federal funding sources that would
19	warrant a temporary exemption from the
20	limitations established in this subpara-
21	graph.
22	"(D) AWARD LIMIT.—No more than 15
23	centers of manufacturing innovation may re-
24	ceive financial assistance under paragraph (1)
25	in any single year.

1	"(e) National Program Office.—
2	"(1) Establishment.—The Secretary of Com-
3	merce shall establish, within the Institute, the Na-
4	tional Office of the Network for Manufacturing In-
5	novation Program (referred to in this section as the
6	'National Program Office'), which shall oversee and
7	carry out the Program.
8	"(2) Functions.—The functions of the Na-
9	tional Program Office are—
10	"(A) to oversee the planning, management,
11	and coordination of the Program;
12	"(B) to enter into memorandums of under-
13	standing with Federal departments and agen-
14	cies, whose missions contribute to or are af-
15	fected by advanced manufacturing, to carry out
16	the purposes described in subsection $(a)(2)$ ;
17	"(C) to develop, not later than 1 year after
18	the date of the enactment of the Revitalize
19	American Manufacturing and Innovation Act of
20	2014, and update not less frequently than once
21	every 2 years thereafter, a strategic plan to
22	guide the Program;
23	"(D) to establish such procedures, proc-
24	esses, and criteria as may be necessary and ap-
25	propriate to maximize cooperation and coordi-

1	nate the activities of the Program with pro-
2	grams and activities of other Federal depart-
3	ments and agencies whose missions contribute
4	to or are affected by advanced manufacturing;
5	"(E) to establish a clearinghouse of public
6	information related to the activities of the Pro-
7	gram; and
8	"(F) to act as a convener of the Network.
9	"(3) Recommendations.—In developing and
10	updating the strategic plan under paragraph (2)(C),
11	the Secretary shall solicit recommendations and ad-
12	vice from a wide range of stakeholders, including in-
13	dustry, small- and medium-sized manufacturing en-
14	terprises, research universities, community colleges,
15	and other relevant organizations and institutions on
16	an ongoing basis.
17	"(4) Report to congress.—Upon completion,
18	the Secretary shall transmit the strategic plan re-
19	quired under paragraph (2)(C) to the Committee on
20	Commerce, Science, and Transportation of the Sen-
21	ate and the Committee on Science, Space, and Tech-
22	nology of the House of Representatives.
23	"(5) Hollings manufacturing extension
24	PARTNERSHIP.—The Secretary shall ensure that the
25	National Program Office incorporates the Hollings

1	Manufacturing Extension Partnership into Program
2	planning to ensure that the results of the Program
3	reach small- and medium-sized entities.
4	"(6) Detailees.—Any Federal Government
5	employee may be detailed to the National Program
6	Office without reimbursement. Such detail shall be
7	without interruption or loss of civil service status or
8	privilege.
9	"(f) Reporting and Auditing.—
10	"(1) Annual reports to the secretary.—
11	"(A) IN GENERAL.—The Secretary of
12	Commerce shall require each recipient of finan-
13	cial assistance under subsection (d)(1) to annu-
14	ally submit a report to the Secretary that de-
15	scribes the finances and performance of the
16	center for manufacturing innovation for which
17	such assistance was awarded.
18	"(B) Elements.—Each report submitted
19	under subparagraph (A) shall include—
20	"(i) an accounting of expenditures of
21	amounts awarded to the recipient under
22	subsection (d)(1); and
23	"(ii) consistent with the metrics-based
24	performance measures developed and im-
25	plemented by the Secretary under this sec-

1	tion, a description of the performance of
2	the center for manufacturing innovation
3	with respect to—
4	"(I) its goals, plans, financial
5	support, and accomplishments; and
6	"(II) how the center for manu-
7	facturing innovation has furthered or
8	failed to meet the purposes described
9	in subsection (a)(2).
10	"(2) Annual reports to congress.—
11	"(A) In General.—Not less frequently
12	than once each year, the Secretary shall submit
13	a report to Congress that describes the per-
14	formance of the Program during the most re-
15	cent 1-year period.
16	"(B) Elements.—Each report submitted
17	under subparagraph (A) shall include, for the
18	period covered by the report—
19	"(i) a summary and assessment of the
20	reports received by the Secretary under
21	paragraph (1);
22	"(ii) an accounting of the funds ex-
23	pended by the Secretary under the Pro-
24	gram, including any temporary exemptions

1	granted from the requirements of sub-
2	section $(d)(5)(C)$ ;
3	"(iii) an assessment of the participa-
4	tion in, and contributions to, the Network
5	by any centers for manufacturing innova-
6	tion not receiving financial assistance
7	under subsection $(d)(1)$ ; and
8	"(iv) an assessment of the Program
9	with respect to meeting the purposes de-
10	scribed in subsection (a)(2).
11	"(3) Biennial assessment by Gao.—
12	"(A) IN GENERAL.—Not less frequently
13	than once every 2 years, the Comptroller Gen-
14	eral of the United States shall submit to Con-
15	gress an assessment of the operation of the
16	Program during the most recent 2-year period,
17	including a final report regarding the overall
18	success of the Program.
19	"(B) Elements.—Each assessment sub-
20	mitted under subparagraph (A) shall include,
21	for the period covered by the report—
22	"(i) a review of the management, co-
23	ordination, and industry utility of the Pro-
24	gram;

1	"(ii) an assessment of the extent to
2	which the Program has furthered the pur-
3	poses described in subsection (a)(2);
4	"(iii) such recommendations for legis-
5	lative and administrative action as the
6	Comptroller General considers appropriate
7	to improve the Program; and
8	"(iv) an assessment as to whether any
9	prior recommendations for improvement
10	made by the Comptroller General have
11	been implemented or adopted.
12	"(g) Additional Authorities.—
13	"(1) Appointment of Personnel and Con-
14	TRACTS.—The Secretary of Commerce may appoint
15	such personnel and enter into such contracts, finan-
16	cial assistance agreements, and other agreements as
17	the Secretary considers necessary or appropriate to
18	carry out the Program, including support for re-
19	search and development activities involving a center
20	for manufacturing innovation.
21	"(2) Transfer of funds.—The Secretary
22	may transfer to other Federal agencies such sums as
23	the Secretary considers necessary or appropriate to
24	carry out the Program. No funds so transferred may
25	be used to reimburse or otherwise pay for the costs

1	of financial assistance incurred or commitments of
2	financial assistance made prior to the date of enact-
3	ment of the Revitalize American Manufacturing and
4	Innovation Act of 2014.
5	"(3) Authority of other agencies.—In the
6	event that the Secretary exercises the authority to
7	transfer funds to another agency under paragraph
8	(2), such agency may award and administer, under
9	the same conditions and constraints applicable to the
10	Secretary, all aspects of financial assistance awards
11	under this section.
12	"(4) Use of resources.—In furtherance of
13	the purposes of the Program, the Secretary may use,
14	with the consent of a covered entity and with or
15	without reimbursement, the land, services, equip-
16	ment, personnel, and facilities of such covered entity.
17	"(5) Acceptance of resources.—In addition
18	to amounts appropriated to carry out the Program,
19	the Secretary may accept funds, services, equipment,
20	personnel, and facilities from any covered entity to
21	carry out the Program, subject to the same condi-
22	tions and constraints otherwise applicable to the
23	Secretary under this section.
24	"(6) Covered entity.—For purposes of this
25	subsection, a covered entity is any Federal depart-

1	ment, Federal agency, instrumentality of the United
2	States, State, local government, tribal government,
3	Territory or possession of the United States, or of
4	any political subdivision thereof, or international or-
5	ganization, or any public or private entity or indi-
6	vidual.
7	"(h) Patents.—Chapter 18 of title 35, United
8	States Code, shall apply to any funding agreement (as de-
9	fined in section 201 of that title) awarded to new or exist-
10	ing centers 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	subsection 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 designee, to carry out the
2	Program without further appropriation and
3	without fiscal year limitation.
4	"(2) Authorization of appropriations.—
5	There is authorized to be appropriated
6	\$300,000,000 to the Secretary of Commerce to be
7	deposited in the Fund established under paragraph
8	(1) to carry out this section.
9	"(3) Administrative expenses.—The Sec-
10	retary of Commerce may use not more than 5 per-
11	cent of the amounts appropriated pursuant to para-
12	graph (2) to pay the salaries and expenses of those
13	Federal employees in the National Program Office.
14	"(4) Additional funding sources.—Not-
15	withstanding any other provision of law, in addition
16	to any funds appropriated under paragraph (2), the
17	Secretary of Commerce may use not more than 10
18	percent of the funds of any economic development,
19	manufacturing, or small business assistance pro-
20	gram, except for the Hollings Manufacturing Exten-
21	sion Program, to carry out the Program established
22	in this section.
23	"(5) Rescission.—There is hereby rescinded,
24	from appropriated discretionary funds that remain
25	available for obligation as of the date of the enact-

1	ment of the Revitalize American Manufacturing and
2	Innovation Act of 2014, \$300,000,000.
3	"(j) Consolidation of Advanced Manufac-
4	TURING TECHNOLOGY CONSORTIA (AMTECH) PRO-
5	GRAM.—The Secretary is directed to merge the Advanced
6	Manufacturing Technology Consortia (AMTech) Program,
7	which has not been previously authorized but has been
8	funded in both fiscal year 2013 and 2014, into the Pro-
9	gram established in this section.
10	"(k) Sunset.—The authority to provide financial as-
11	sistance to establish or support a center for manufacturing
12	innovation under subsection (i) terminates effective De-
13	cember 31, 2024, but the Program and the Network es-
14	tablished under this section may continue to operate, sub-
15	ject to the availability of appropriations, if the Secretary
16	determines that the purposes in subsection (a)(2) are
17	being met.".
18	(b) Repeal of Duplicative Program; Tech-
19	NOLOGY INNOVATION PROGRAM.—
20	(1) In General.—Section 28 of the National
21	Institute of Standards and Technology Act (15
22	U.S.C. 278n) is repealed.
23	(2) Transition.—Notwithstanding the repeal
24	made by paragraph (1), the Director shall carry out
25	section 28 of the National Institute of Standards

1	and Technology Act (15 U.S.C. 278n) as that sec-
2	tion was in effect on the day before the date of en-
3	actment of this Act, with respect to applications for
4	grants, cooperative agreements, or contracts under
5	that section submitted before that date.
6	(3) Technical and conforming amend-
7	MENTS.—
8	(A) Section 2(d) of the National Institute
9	of Standards and Technology Act (15 U.S.C.
10	272(d)) is amended by striking "sections 25,
11	26, and 28" and inserting "sections 25 and
12	26".
13	(B) Section 10(h)(1) of the National Insti-
14	tute of Standards and Technology Act (15
15	U.S.C. 278(h)(1)) is amended by striking ", in-
16	cluding the Program established under section
17	28,".
18	(c) Sense of Congress.—It is the sense of Con-
19	gress that the industry-led consortia envisioned under the
20	Advanced Manufacturing Technology Consortia (AMTech)
21	Program should participate in the centers for manufac-
22	turing innovation established under section 34 of the Na-
23	tional Institute of Standards and Technology Act (15
24	U.S.C. 271 et seq.).

## 1 SEC. 4. REPORT.

2	(a) Defined Term.—In this section, the term "rare
3	earth monopoly" means the domination of the market for
4	rare earth elements, including—
5	(1) rare earth oxides, metals, alloys, and
6	magnets;
7	(2) integrated systems that include rare earth
8	components, including wind turbines, motors, elec-
9	tronics, and catalysts for green technology lighting
10	and transportation in commercial products; and
11	(3) oxide, metal, or alloy-based rare earth mate-
12	rials, magnets, components and systems for guided
13	ordinance, stealth and drone technologies, interro-
14	gating and targeting lasers, radar, sonar, and weap-
15	ons systems used by the United States military.
16	(b) Survey.—The Secretary of Commerce shall con-
17	duct a survey that—
18	(1) measures the economic impact of China's
19	rare earth monopoly on the United States and other
20	affected nations to determine the magnitude of eco-
21	nomic and intellectual property loss resulting from
22	China's rare earth monopoly; and
23	(2) looks beyond gross economic figures of
24	value added goods and identifies specific tech-
25	nologies, industries, and defense systems that are

1	now primarily produced in, or are likely to relocate
2	or migrate to, China.
3	(c) REPORT.—Not later than 1 year after the date
4	of the enactment of this Act, the Secretary of Commerce
5	shall submit a report to Congress that contains the results
6	of the survey conducted under subsection (b). The report
7	shall contain recommendations on how the United States
8	should—
9	(1) initiate direct dialogue with affected nations
10	to assess the short- and long-term economic con-
11	sequences of China's rare earth monopoly and re-
12	lated trade practices; and
13	(2) promote cooperative resolutions to facilitate
14	partnership structures that will offset imbalances
15	caused by China's rare earth monopoly.