

AMERICAN MANUFACTURING LEADERSHIP ACT

—————
JUNE 19, 2019.—Committed to the Committee of the Whole House on the State of
the Union and ordered to be printed
—————

Ms. EDDIE BERNICE JOHNSON of Texas, from the Committee on
Science, Space, and Technology, submitted the following

R E P O R T

[To accompany H.R. 2397]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, Space, and Technology, to whom was referred the bill (H.R. 2397) to amend the National Institute of Standards and Technology Act to make changes to the implementation of the network for manufacturing innovation, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “American Manufacturing Leadership Act”.

SEC. 2. CHANGES IN IMPLEMENTATION OF NETWORK FOR MANUFACTURING INNOVATION.

Section 34 of the National Institute of Standards and Technology Act (15 U.S.C. 278s) is amended—

(1) in subsection (a)—

(A) in paragraph (1), by striking “Network for Manufacturing Innovation Program” and inserting “Manufacturing USA Program”; and

(B) in paragraph (2)—

(i) in subparagraph (G), by striking “and” at the end;

(ii) in subparagraph (H), by striking the period at the end and inserting “; and”; and

(iii) by adding at the end the following:

“(I) to contribute to the development of regional manufacturing innovation clusters across the Nation.”;

(2) in subsection (c)—

(A) in paragraph (1), by striking “Secretary” each place it appears in subparagraph (C) and (D) and inserting “agency head”;

(B) in paragraph (2)—

(i) by striking subparagraph (E);

(ii) by redesignating subparagraphs (A), (B), (C), and (D) as clauses (i), (ii), (iii), and (iv), respectively, and moving the margins of such clauses (as so redesignated) two ems to the right;

(iii) in the matter preceding clause (i) (as so redesignated), by striking “Activities of a center for manufacturing innovation may include” and inserting the following:

“(A) REQUIRED ACTIVITIES.—Activities of a center for manufacturing innovation shall include”;

(iv) in clause (ii), as so redesignated, by inserting before the period at the end the following: “addressing workforce needs through training and education programs at all appropriate education levels”;

(v) in clause (iii), as so redesignated, by inserting before the period at the end the following: “, as appropriate”;

(vi) by inserting after clause (iv) (as so redesignated) the following:

“(v) Development of roadmaps with respect to technology areas being pursued by that center for manufacturing innovation that take into account the research and development undertaken at other centers for manufacturing innovation and Federal agencies with respect to such areas.”; and

(vii) by adding at the end the following:

“(B) PERMISSIBLE ACTIVITIES.—Activities of a center for manufacturing innovation may include such other activities as the agency head, in consultation with Federal departments and agencies whose missions contribute to, or are affected by, advanced manufacturing, considers consistent with the purposes described in subsection (a)(2).”; and

(C) in paragraph (3), by adding at the end the following:

“(C) APPLICATION.—Effective beginning on the date of the enactment of the American Manufacturing Leadership Act, a manufacturing center shall be subject to subsections (a)(2), (c), and (d) in the same manner and to the same extent as such provisions apply to a center for manufacturing innovation established pursuant to this section if such center—

“(i) (I) is, as of such date of enactment, considered a center for manufacturing innovation under subparagraph (A) or recognized as a center for manufacturing innovation under subparagraph (B); and

“(II) as of such date of enactment, receives Federal financial assistance under subsection (d) or otherwise consistent with the purposes of this section; or

“(ii) is under pending agency review for such recognition as of such date of enactment.”;

(3) in subsection (d)—

(A) in paragraph (1)—

(i) by striking “Secretary” and inserting “agency head”; and

- (ii) by inserting “for a period of not less than 5 and not more than 7 years” after “financial assistance”;
- (B) in paragraph (2), by striking “Secretary” each place it appears and inserting “agency head”;
- (C) in paragraph (4)—
 - (i) by amending subparagraph (A) to read as follows:

“(A) COMPETITIVE, MERIT REVIEW.—In awarding financial assistance under paragraph (1), the agency head shall—

 - “(i) use a competitive, merit review process that includes peer review by a diverse group of individuals with relevant expertise from both the private and public sectors; and
 - “(ii) ensure that the technology focus of a center for manufacturing innovation does not substantially duplicate the technology focus of any other center for manufacturing innovation.”;
 - (ii) in subparagraph (B)(i), by striking “Secretary” and inserting “agency head”;
 - (iii) by amending subparagraph (C) to read as follows:

“(C) PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.—For each award of financial assistance under paragraph (1), the agency head shall develop and implement metrics-based performance standards to assess the effectiveness of activities funded in making progress toward the purposes of the Program.”;
 - (iv) in subparagraph (D), by striking “the Secretary shall” and all that follows through “collaborate” and inserting the following: “agency head, in coordination with the National Program Office, as appropriate, shall collaborate”; and
 - (v) in subparagraph (E), by striking “Secretary” and inserting “agency head”; and
- (D) in paragraph (5)—
 - (i) by amending subparagraph (A) to read as follows:

“(A) TERM OF AWARD.—

 - “(i) IN GENERAL.—Subject to clause (ii), an award made to a center for manufacturing innovation may be renewed for an additional period not to exceed the duration of the original funding award, subject to a rigorous merit review. In awarding additional funds, the agency head shall consider the extent to which the center has made progress in achieving the purposes described in subsection (a) and carrying out the activities specified in subsection (c)(2).
 - “(ii) EXISTING CENTERS.—Notwithstanding clause (i), a center already in existence or undergoing a renewal process on the date of enactment of the American Manufacturing Leadership Act—
 - “(I) may continue to receive support for the duration of the original funding award beginning on the date of establishment of that center; and
 - “(II) shall be eligible for renewal of that funding pursuant to clause (i).”; and
 - (ii) in subparagraphs (B) and (C), by striking “Secretary” each place it appears and inserting “agency head”;
- (4) by amending subsection (e) to read as follows:

“(e) GRANT PROGRAM FOR PUBLIC SERVICE ACTIVITIES FOR CENTERS FOR MANUFACTURING INNOVATION WITHOUT FEDERAL FUNDING.—The Secretary may award grants on a competitive basis to centers of manufacturing innovation that are no longer recognized as such under subsection (c)(3)(C) to carry out workforce development, outreach to small- and medium-sized manufacturers, and other activities that—

 - “(1) are determined by the Secretary to be in the national interest; and
 - “(2) are unlikely to receive private sector financial support.”;
- (5) in subsection (f)—
 - (A) in paragraph (2)—
 - (i) in subparagraph (E), by striking “and” at the end;
 - (ii) in subparagraph (F), by striking the period at the end and inserting a semicolon; and
 - (iii) by adding at the end the following:

“(G) to work with non-sponsoring Federal agencies to explore and develop options for sponsoring centers for manufacturing innovation at such agencies;

“(H) to work with sponsoring Federal agencies to develop and implement network-wide performance goals with measurable targets and timelines;

“(I) to help develop pilot programs that may be implemented by the centers for manufacturing innovation to address specific purposes of the Program, including to accelerate technology transfer to the private sector; and
 “(J) to identify and disseminate best practices for workforce education and training across centers for manufacturing innovation and further enhance collaboration among centers for manufacturing innovation in developing and implementing such practices.”; and

(B) by amending paragraph (5) to read as follows:

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

“(A) significant outreach to, participation of, and engagement of small- and medium-sized manufacturers in centers for manufacturing innovation across the entirety of the manufacturing supply chain; and

“(B) that the results of the Program, including technologies developed by the Program, reach small- and medium-sized manufacturers and that such entities have access to technical assistance, as appropriate, in deploying those technologies.”;

(6) in subsection (g)—

(A) in paragraph (1)(A)—

(i) by striking “The Secretary” and all that follows through “report to the Secretary” and inserting the following: “Each agency head shall require each recipient of financial assistance from that agency under subsection (d)(1) and any other manufacturing centers considered to be centers for manufacturing innovation pursuant to subsection (c)(3) to annually submit to the appropriate agency head a report”; and

(ii) by adding at the end the following: “Each agency head shall submit such reports to the Secretary.”; and

(B) by amending paragraph (3) to read as follows:

“(3) ASSESSMENTS BY GAO.—

“(A) ASSESSMENTS.—Not less frequently than once every 3 years, the Comptroller General shall submit to Congress an assessment of the operation of the Program during the most recent 3-year period, including an assessment of the progress made towards achieving the goals specified in the national strategic plan for advanced manufacturing under section 102(b)(7) of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 6622(b)(7)).

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

“(i) a review of the management, coordination, and industry utility of the Program;

“(ii) an assessment of the extent to which the Program has furthered the purposes described in subsection (a)(2);

“(iii) such recommendations for legislative and administrative action as the Comptroller General considers appropriate to improve the Program; and

“(iv) an assessment as to whether any prior recommendations for improvement made by the Comptroller General have been implemented or adopted.”;

(7) in subsection (h)—

(A) in paragraph (2), by striking “subsection (e)” and inserting “subsection (k)”; and

(B) by adding at the end the following:

“(6) COLLABORATIONS WITH OTHER FEDERAL AGENCIES.—The Secretary shall collaborate with Federal agencies whose missions contribute to, or are affected by, advanced manufacturing to identify and leverage existing resources at such Federal agencies to assist centers of manufacturing innovation in carrying out the purposes of the program specified in subsection (a)(2). Such existing resources may include programs—

“(A) at the Department of Labor relating to labor and apprenticeships;

“(B) at the Economic Development Administration relating to regional innovation, such as the Regional Innovation Strategies program;

“(C) at the Department of Education relating to workforce development, education, training, and retraining;

“(D) at the Department of Defense relating to procurement and other authorities of the Department of Defense;

“(E) at the Food and Drug Administration relating to biopharmaceutical manufacturing;

“(F) at the National Science Foundation, including the Advanced Technological Education program;

“(G) at the National Aeronautics and Space Administration relating to procurement, workforce development, education, training, and retraining; and

“(H) additional programs that the Secretary determines are appropriate to support the activities of existing centers for manufacturing innovation.”; and

(8) by adding at the end the following:

“(j) DEFINITIONS.—In this section:

“(1) AGENCY HEAD.—The term ‘agency head’ means the head of a Federal agency that is providing financial assistance for a center of manufacturing innovation, including the Secretary of Commerce and the Secretary of Energy.

“(2) REGIONAL INNOVATION CLUSTER.—The term ‘regional innovation cluster’ has the meaning given such term in section 27(f)(1) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3722(f)(1)).

“(k) AUTHORIZATION OF APPROPRIATIONS.—

“(1) NIST.—There are authorized to be appropriated to the Secretary to carry out this section \$25,000,000 for each of fiscal years 2020 through 2024.

“(2) RESERVATION.—Of the amount made available under paragraph (1) the Secretary shall reserve not less than \$5,000,000 for the National Office of the Network for Manufacturing Innovation Program established under subsection (f).

“(3) DEPARTMENT OF ENERGY.—For centers of manufacturing innovation operated by the Department of Energy, there are authorized to be appropriated to the Secretary of Energy—

“(A) \$70,000,000 for each of fiscal years 2020, 2021, and 2022; and

“(B) \$84,000,000 for each of fiscal years 2023 and 2024.”.

SEC. 3. INCREASED EMPHASIS ON REGIONAL INNOVATION WITHIN AND EXTENSION OF REGIONAL INNOVATION PROGRAM.

Section 27 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3722) is amended—

(1) in subsection (b)(2) by adding at the end the following new subparagraph:

“(I) Developing relationships at the local level to build supply chains and use existing capabilities of entities operating on that level to bring economic growth to suburban and rural areas.”; and

(2) in subsection (g)(2) by striking “2019” and inserting “2024”.

II. PURPOSE OF THE BILL

The purpose of the bill is to amend the National Institute of Standards and Technology Act to reauthorize the network for manufacturing innovation and make changes to the implementation of the network. These changes include an increase in activities in workforce development and outreach to small manufacturers, and the development of network-wide performance metrics.

III. BACKGROUND AND NEED FOR THE LEGISLATION

The Manufacturing USA Institutes are a national network of institutes focused on accelerating innovation in industry-relevant manufacturing technologies to support the commercialization of these technologies. Each Institute is a public-private partnership that leverages industry, academic, and federal resources to solve non-competitive/pre-competitive technical challenges in select advanced manufacturing sectors. The Institutes started as an initiative of the Obama Administration in 2012 and were authorized by Congress in 2014 through passage of the Revitalizing American Manufacturing and Innovation (RAMI) Act, included in the FY15 Appropriations Act. Technology areas for the fourteen Institutes vary widely, and include 3D printing, advanced robotics, smart manufacturing, and advanced composites.

The Manufacturing USA Program has been operational for five years and several reports, including from the GAO, the National Academies, and Deloitte, have evaluated the success of the Institutes in achieving their overall goal of strengthening the U.S. advanced manufacturing base. The consensus from these reports is that the Institutes are successfully leveraging the public-private partnership model to convene industry and academic partners to make joint R&D investments in technologies essential to commercializing cutting-edge advanced manufacturing techniques. However, these reviews have found that there is still room for improvement for the Institutes to deliver on the purposes of the Program. The American Manufacturing Leadership Act (H.R. 2397) incorporates suggestions from these reports to reauthorize the Manufacturing USA Program and make some changes to the Program.

IV. COMMITTEE HEARINGS

On March 26, 2019, the Honorable Haley Stevens presiding, the Research and Technology Subcommittee and the Energy Subcommittee of the Committee on Science, Space, and Technology held a joint hearing to review the successes and further opportunities for the Manufacturing USA Institutes to achieve the goal of improving the competitiveness of U.S. manufacturing. There were five witnesses: 1) Mr. Ryan Myers, Director of Business Development, DoD for Hexagon Manufacturing Intelligence (Hexagon MI); 2) Mr. Mike Molnar, Director of the Office of Advanced Manufacturing at the National Institute of Standards and Technology (NIST); 3) Dr. John Hopkins, CEO of the Institute for Advanced Composites Manufacturing Innovation (IACMI); 4) Ms. Valri Lightner, Acting Director of the Advanced Manufacturing Office under the Office of Energy Efficiency and Renewable Energy at the Department of Energy; 5) Dr. Mitchell Dibbs, Associate R&D Director for External Technology—Government Programs at the Dow Chemical Company. Witnesses and Members discussed the benefits of the public-private partnership model, the need to ensure sustainability for the institutes, and opportunities to enhance education and workforce training and outreach to small and medium size manufacturers.

V. COMMITTEE CONSIDERATION AND VOTES

As summarized in Section IV of this report, the Subcommittee on Research and Technology and the Energy Subcommittee heard testimony in the 116th Congress relevant to the activities authorized in H.R. 2397 at a hearing held on March 26, 2019.

On April 30, 2019, Representative Haley Stevens of the Committee on Science, Space, and Technology, for herself and Representatives Balderson, Kennedy, Reed, Eddie Bernice Johnson of Texas, and Anthony Gonzalez of Ohio, introduced H.R. 2397, *the American Manufacturing and Leadership Act*, to reauthorize the Manufacturing USA program and make changes to the implementation of the program.

The Committee on Science, Space, and Technology met to consider H.R. 2397 on Tuesday, May 1, 2019 and considered the following amendments to the bill:

1. Ms. Stevens offered an amendment to make technical and conforming amendments to the underlying legislation. The amendment was agreed to by a voice vote.

2. Mr. Lamb and Mr. Gonzalez offered an amendment that authorizes the Secretary of Commerce to award grants to institutes that no longer receive substantial federal funding under the Manufacturing USA Program in order to continue federal support for education and workforce training; outreach to small businesses for that institute's technology area; and other activities that the private sector is highly unlikely to support on its own. The amendment was agreed to by a voice vote.

3. Mr. Posey and Mr. Lamb offered an amendment to add NASA to a list of agencies that the Secretary of Commerce can collaborate with to ensure the Manufacturing USA Program is fully leveraging all relevant Federal programs to achieve Program purposes. The amendment was agreed to by a voice vote.

4. Mr. Weber offered an amendment to require a sunset on funding for all institutes after 7 years. The amendment was not agreed to by a roll call vote of 13 ayes and 20 nays.

Committee on Science, Space, and Technology
 One Hundred Sixteenth Congress
 Roll Call Vote No. 1
 Amendment # 4 offered by Mr. Weber to H.R. 2397
 Defeated By: 13 Aye and 20 No

Majority	Aye	No	Present
Chairwoman Johnson, Texas		x	
Zoe Lofgren, California		x	
Daniel Lipinski, Illinois		x	
Suzanne Bonamici, Oregon		x	
Ami Bera, California,		x	
Conor Lamb, Pennsylvania		x	
Lizzie Fletcher, Texas		x	
Haley Stevens, Michigan		x	
Kendra Horn, Oklahoma		x	
Mikie Sherrill, New Jersey		x	
Brad Sherman, California			
Steve Cohen, Tennessee		x	
Jerry McNerney, California		x	
Ed Perlmutter, Colorado		x	
Paul Tonko, New York		x	
Bill Foster, Illinois		x	
Don Beyer, Virginia		x	
Charlie Crist, Florida		x	
Sean Casten, Illinois		x	
Katie Hill, California			
Ben McAdams, Utah		x	
Jennifer Wexton, Virginia		x	
Total		20	

Minority	Aye	No	Present
Frank Lucas, Oklahoma	x		
Mo Brooks, Alabama	x		
Bill Posey, Florida	x		
Randy Weber, Texas	x		
Brian Babin, Texas	x		
Andy Biggs, Arizona			
Roger Marshall, Kansas			
Ralph Norman, South Carolina			
Michael Cloud, Texas	x		
Troy Balderson, Ohio	x		
Pete Olson, Texas	x		
Anthony Gonzalez, Ohio	x		
Michael Waltz, Florida	x		
Jim Baird, Indiana	x		
Jaime Herrera Beutler, Washington	x		
Jennifer González-Colón, Puerto Rico	x		
Total	13		

5. Mr. Weber offered an amendment to add a spending limitation such that the funding for centers for manufacturing innovation must come from within the total funds appropriated to each agency in each fiscal year and adds a hard cap on funding such that agencies cannot by law exceed the amounts authorized in this legislation. The amendment was not agreed to by a roll call vote of 14 ayes and 20 nays.

Committee on Science, Space, and Technology
 One Hundred Sixteenth Congress
 Roll Call Vote No. 2
 Amendment # 5 offered by Mr. Weber to H.R. 2397
 Defeated By: 14 Aye and 20 No

Majority	Aye	No	Present	Minority	Aye	No	Present
Chairwoman Johnson, Texas		x		Frank Lucas, Oklahoma	x		
Zoe Lofgren, California		x		Mo Brooks, Alabama	x		
Daniel Lipinski, Illinois		x		Bill Posey, Florida	x		
Suzanne Bonamici, Oregon		x		Randy Weber, Texas	x		
Ami Bera, California,		x		Brian Babin, Texas	x		
Conor Lamb, Pennsylvania		x		Andy Biggs, Arizona			
Lizzie Fletcher, Texas		x		Roger Marshall, Kansas	x		
Haley Stevens, Michigan		x		Ralph Norman, South Carolina			
Kendra Horn, Oklahoma		x		Michael Cloud, Texas	x		
Mikie Sherrill, New Jersey		x		Troy Balderson, Ohio	x		
Brad Sherman, California				Pete Olson, Texas	x		
Steve Cohen, Tennessee		x		Anthony Gonzalez, Ohio	x		
Jerry McNerney, California		x		Michael Waltz, Florida	x		
Ed Perlmutter, Colorado		x		Jim Baird, Indiana	x		
Paul Tonko, New York		x		Jaime Herrera Beutler, Washington	x		
Bill Foster, Illinois		x		Jennifer González-Colón, Puerto Rico	x		
Don Beyer, Virginia		x		Total	14		
Charlie Crist, Florida		x					
Sean Casten, Illinois		x					
Katie Hill, California							
Ben McAdams, Utah		x					
Jennifer Wexton, Virginia		x					
Total		20					

Ms. Johnson moved that the Committee favorably report the bill, H.R. 2397, as amended, to the House with the recommendation that the bill be approved. The motion was agreed to by a voice vote.

Ms. Johnson moved that: (1) the staff be authorized to make any necessary technical and conforming changes to the bill; and (2) that Members have two subsequent calendar days in which to submit supplemental, minority, or additional views on the measure.

VI. SUMMARY OF MAJOR PROVISIONS OF THE BILL

The American Manufacturing Leadership Act (H.R. 2397) would extend the Revitalize American Manufacturing and Innovation (RAMI) Act of 2014 to all agencies sponsoring Manufacturing USA Institutes, allow for the continuation of the Manufacturing USA Program through the authorization of funding renewals, and expand authorities of the NIST Advanced Manufacturing National Program Office.

VII. SECTION-BY-SECTION ANALYSIS (BY TITLE AND SECTION)

Sec. 1 Short title

“American Manufacturing Leadership Act”

Sec. 2 Changes in implementation of network for manufacturing innovation

This section makes changes to the Revitalize American Manufacturing and Innovation (RAMI) Act of 2014. In particular, this section: adds contributing to the development of regional innovation clusters in manufacturing to the purposes of the Manufacturing USA Program; extends the requirements of the RAMI Act to all agencies sponsoring Manufacturing USA institutes (whereas previously the requirements had applied only to the Department of Commerce (DOC)/NIST); strengthens the institutes’ role in advanced manufacturing workforce development and in outreach to and inclusion of small and medium sized businesses; authorizes agencies to renew institutes for an additional period of funding following a rigorous review of the institute’s progress toward meeting measureable goals; and ensures that the technology focus of any institute does not substantially overlap with the technology focus of any other institute.

This section also expands the authorities of the Manufacturing USA Program office housed at NIST to collaborate with other agencies, including to develop network-wide performance goals; help develop pilot programs for the institutes; and identify and disseminate best practices in education and workforce training to the network of institutes. Additionally, this section strengthens the partnership between the Manufacturing USA Program and the Manufacturing Extension Partnership Program to ensure better engagement of small businesses in the institutes; ensures more consistent annual reporting from each institute; ties the GAO reviews of the Manufacturing USA Program to the national strategic plan for advanced manufacturing required by the America Competes Act of 2010; and ensures that the Program is fully leveraging relevant programs across the Federal government to help the institutes achieve their goals. Finally, this section authorizes \$25 million for NIST for each of fiscal years 2020–2024; \$70 million for DOE for

each of fiscal years 2020–2022; and \$84 million for DOE for each of fiscal years 2023–2024 in order to enable each agency to continue funding their current institutes and stand up at least one additional institute.

Sec. 3. Increased emphasis on regional innovation within and extension of regional innovation program

This section reauthorizes the Department of Commerce Economic Development Administration Regional Innovation Program originally authorized in the America Competes Act of 2010 for an additional 5 years and adds language on developing relationships to build supply chains to the list of permissible activities under Program grants.

VIII. COMMITTEE VIEWS

The Committee intends that this legislation shall not decrease the autonomy of each funding agency to select and oversee its own center(s) for manufacturing innovation consistent with that agency's mission. It is also the Committee's intention that the additional authorities granted to the National Institute for Standards and Technology (NIST) enable NIST to provide shared tools for new and existing centers to carry out their purposes and activities, without granting NIST any new authorities over new or existing centers supported entirely by other agencies. Finally, the Committee does not intend for this legislation to increase reporting requirements for centers. Rather, the Committee intends the onus be on agencies to better coordinate and collaborate to streamline and standardize some of the reporting requirements, including performance metrics, as appropriate. The Committee understands that some metrics and reporting requirements will continue to be unique to individual agencies. However, a system-wide assessment of the outcomes of Federal investments in the Manufacturing USA Program requires at least some standardization in metrics and reporting.

IX. COST ESTIMATE

Pursuant to clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, the Committee adopts as its own the estimate of new budget authority, entitlement authority, or tax expenditures or revenues contained in the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

X. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, May 29, 2019.

Hon. EDDIE BERNICE JOHNSON,
*Chairwoman, Committee on Science, Space, and Technology,
House of Representatives, Washington, DC.*

DEAR MADAM CHAIRWOMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2397, the American Manufacturing Leadership Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is David Hughes.

Sincerely,

KEITH HALL,
Director.

Enclosure.

H.R. 2397, American Manufacturing Leadership Act			
As ordered reported by the House Committee on Science, Space, and Technology on May 1, 2019.			
By Fiscal Year, Millions of Dollars	2019	2019-2024	2019-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Deficit Effect	0	0	0
Spending Subject to Appropriation (Outlays)	0	218	n.e.
Pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

n.e. = not estimated.

Major Provisions

H.R. 2397 would increase the amounts authorized to be appropriated for the Manufacturing USA grant program that funds collaborative research and development efforts among academia, government, and private industry to solve advanced manufacturing challenges. Manufacturing USA is administered and funded by the National Institute of Standards and Technology (NIST) and the Department of Energy (DOE).¹ The bill also would extend the authorization for the Regional Innovation Program administered by the Economic Development Administration (EDA).

Federal Costs

Increases in spending subject to appropriation under H.R. 2397 are shown in Table 1. CBO estimates that implementing the bill would cost \$218 million over the 2020–2024 period, subject to appropriation of the authorized amounts.

TABLE 1—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER H.R. 2397

	By fiscal year, millions of dollars—						
	2019	2020	2021	2022	2023	2024	2019–2024
NIST:							
Authorization	0	20	20	20	20	20	100
Estimated Outlays	0	9	18	20	20	20	87

¹Partners include federal agencies with missions related to advanced manufacturing in the United States, including the Department of Defense, Department of Education, Department of Energy, Department of Health and Human Services, Department of Labor, National Aeronautics and Space Administration, National Science Foundation, Small Business Administration, and U.S. Department of Agriculture.

TABLE 1—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER H.R. 2397—
Continued

	By fiscal year, millions of dollars—						
	2019	2020	2021	2022	2023	2024	2019– 2024
DOE:							
Estimated Authorization	0	20	20	20	34	34	128
Estimated Outlays	0	9	18	20	26	33	106
EDA:							
Authorization	0	10	10	10	10	10	50
Estimated Outlays	0	1	3	5	8	8	25
Total Changes:							
Estimated Authorization	0	50	50	50	64	64	278
Estimated Outlays	0	19	39	45	54	61	218

NIST = National Institute of Standards and Technology, DOE = Department of Energy; EDA = Economic Development Administration.

Under current law, NIST is authorized to receive appropriations of \$5 million a year over the 2015–2024 period to carry out the Manufacturing USA program. H.R. 2397 would increase that amount to \$25 million each fiscal year from 2020 to 2024. CBO estimates that implementing that provision would cost \$87 million over the 2020–2024 period.

Under current law the DOE is authorized to transfer a total of \$250 million over the 2015–2024 period to NIST to carry out the Manufacturing USA program. To date, however, no DOE appropriations have been provided for the Manufacturing USA program. H.R. 2397 would authorize DOE to receive appropriations of \$70 million a year over the 2020–2022 period and \$84 million a year over the 2023–2024 period to fund and operate centers of manufacturing innovation. Thus, over the 2020–2024 period, H.R. 2397 would increase the amounts authorized to be appropriated to DOE for this program by \$128 million, which CBO estimates would cost \$106 million over the five year period.

Finally, under current law, the authorization of appropriations for the EDA’s Regional Innovation Program expires in 2019. H.R. 2397 would extend the \$10 million a year authorization through 2024, which CBO estimates would cost \$25 million over the next five years.

The CBO staff contact for this estimate is David Hughes. The estimate was reviewed by Theresa Gullo, Assistant Director for Budget Analysis.

XI. FEDERAL MANDATES STATEMENT

H.R. 2397 contains no unfunded mandates.

XII. COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

The Committee’s oversight findings and recommendations are reflected in the body of this report.

XIII. STATEMENT ON GENERAL PERFORMANCE GOALS AND OBJECTIVES

Pursuant to clause (3)(c) of House rule XIII, the goals of H.R. 2397 are to strengthen coordination of federal investments in U.S. advanced manufacturing that will improve the competitiveness of U.S. manufacturing through advanced manufacturing research, in-

novation, and technology, develop domestic advanced manufacturing capabilities, and accelerate the development of an advanced manufacturing workforce.

XIV. FEDERAL ADVISORY COMMITTEE STATEMENT

H.R. 2397 does not create any advisory committees.

XV. DUPLICATION OF FEDERAL PROGRAMS

Pursuant to clause 3(c)(5) of rule XIII of the Rules of the House of Representatives, the Committee finds that no provision of H.R. 2397 establishes or reauthorizes a program of the federal government known to be duplicative of another federal program, including any program that was included in a report to Congress pursuant to section 21 of Public Law 111–139 or the most recent Catalog of Federal Domestic Assistance.

XVI. EARMARK IDENTIFICATION

Pursuant to clause 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that H.R. 2397 contains no earmarks, limited tax benefits, or limited tariff benefits.

XVII. APPLICABILITY TO THE LEGISLATIVE BRANCH

The Committee finds that H.R. 2397 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVIII. STATEMENT ON PREEMPTION OF STATE, LOCAL, OR TRIBAL LAW

This bill is not intended to preempt any state, local, or tribal law.

XIX. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman):

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY ACT

* * * * *

SEC. 34. NETWORK FOR MANUFACTURING INNOVATION.

(a) ESTABLISHMENT OF NETWORK FOR MANUFACTURING INNOVATION PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish within the Institute a program to be known as the “[Network for Manufacturing Innovation Program] *Manufacturing USA Program*” (referred to in this section as the “Program”).

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

(A) to improve the competitiveness of United States manufacturing and to increase the production of goods manufactured predominantly within the United States;

(B) to stimulate United States leadership in advanced manufacturing research, innovation, and technology;

(C) to facilitate the transition of innovative technologies into scalable, cost-effective, and high-performing manufacturing capabilities;

(D) to facilitate access by manufacturing enterprises to capital-intensive infrastructure, including high-performance electronics and computing, and the supply chains that enable these technologies;

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

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

(G) to leverage non-Federal sources of support to promote a stable and sustainable business model without the need for long-term Federal funding; **[and]**

(H) to create and preserve jobs~~...~~; *and*

(I) to contribute to the development of regional manufacturing innovation clusters across the Nation.

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

(A) the Network for Manufacturing Innovation established under subsection (b); and

(B) the establishment of centers for manufacturing innovation.

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

(b) ESTABLISHMENT OF NETWORK FOR MANUFACTURING INNOVATION.—

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

(2) DESIGNATION.—The network established under paragraph (1) shall be known as the “Network for Manufacturing Innovation” (referred to in this section as the “Network”).

(c) CENTERS FOR MANUFACTURING INNOVATION.—

(1) IN GENERAL.—For purposes of this section, a “center for manufacturing innovation” is a center that—

(A) has been established by a person or group of persons to address challenges in advanced manufacturing and to assist manufacturers in retaining or expanding industrial production and jobs in the United States;

(B) has a predominant focus on a manufacturing process, novel material, enabling technology, supply chain integration methodology, or another relevant aspect of advanced manufacturing, such as nanotechnology applications, advanced ceramics, photonics and optics, composites, biobased and advanced materials, flexible hybrid technologies, and tool development for microelectronics;

(C) as determined by the **【Secretary】** *agency head*, has the potential—

(i) to improve the competitiveness of United States manufacturing, including key advanced manufacturing technologies such as nanotechnology, advanced ceramics, photonics and optics, composites, biobased and advanced materials, flexible hybrid technologies, and tool development for microelectronics;

(ii) to accelerate non-Federal investment in advanced manufacturing production capacity in the United States; or

(iii) to enable the commercial application of new technologies or industry-wide manufacturing processes; and

(D) includes active participation among representatives from multiple industrial entities, research universities, community colleges, and such other entities as the **【Secretary】** *agency head* considers appropriate, which may include industry-led consortia, career and technical education schools, Federal laboratories, State, local, and tribal governments, businesses, educational institutions, and nonprofit organizations.

(2) **ACTIVITIES.**—**【Activities of a center for manufacturing innovation may include—】**

(A) *REQUIRED ACTIVITIES.*—*Activities of a center for manufacturing innovation shall include the following:—*

【(A)】 (i) Research, development, and demonstration projects, including proof-of-concept development and prototyping, to reduce the cost, time, and risk of commercializing new technologies and improvements in existing technologies, processes, products, and research and development of materials to solve precompetitive industrial problems with economic or national security implications.

【(B)】 (ii) Development and implementation of education, training, and workforce recruitment courses, materials, and programs *addressing workforce needs through training and education programs at all appropriate education levels.*

【(C)】 (iii) Development of innovative methodologies and practices for supply chain integration and introduction of new technologies into supply chains, *as appropriate.*

【(D)】 (iv) Outreach and engagement with small and medium-sized manufacturing enterprises, including women and minority owned manufacturing enterprises, in addition to large manufacturing enterprises.

(v) *Development of roadmaps with respect to technology areas being pursued by that center for manufacturing innovation that take into account the research and development undertaken at other centers for manufacturing innovation and Federal agencies with respect to such areas.*

【(E)】 Such other activities as the Secretary, in consultation with Federal departments and agencies whose mis-

sions contribute to or are affected by advanced manufacturing, considers consistent with the purposes described in subsection (a)(2).】

(B) PERMISSIBLE ACTIVITIES.—Activities of a center for manufacturing innovation shall include such other activities as the agency head, in consultation with Federal departments and agencies whose missions contribute to, or are affected by, advanced manufacturing, considers consistent with the purposes described in subsection (a)(2).

(3) ADDITIONAL CENTERS FOR MANUFACTURING INNOVATION.—

(A) IN GENERAL.—The National Additive Manufacturing Innovation Institute and other manufacturing centers formally recognized as manufacturing innovation centers pursuant to Federal law or executive actions, or under pending interagency review for such recognition as of the date of enactment of the Revitalize American Manufacturing and Innovation Act of 2014, shall be considered centers for manufacturing innovation, but such centers shall not receive any financial assistance under subsection (d).

(B) NETWORK PARTICIPATION.—A manufacturing center that is substantially similar to those established under this subsection but that does not receive financial assistance under subsection (d) may, upon request of the center, be recognized as a center for manufacturing innovation by the Secretary for purposes of participation in the Network.

(C) APPLICATION.—Effective beginning on the date of the enactment of the American Manufacturing Leadership Act, a manufacturing center shall be subject to subsections (a)(2), (c), and (d) in the same manner and to the same extent as such provisions apply to a center for manufacturing innovation established pursuant to this section if such center—

(i)(I) is, as of such date of enactment, considered a center for manufacturing innovation under subparagraph (A) or recognized as a center for manufacturing innovation under subparagraph (B); and

(II) as of such date of enactment, receives Federal financial assistance under subsection (d) or otherwise consistent with the purposes of this section; or

(ii) is under pending agency review for such recognition as of such date of enactment.

(d) FINANCIAL ASSISTANCE TO ESTABLISH AND SUPPORT CENTERS FOR MANUFACTURING INNOVATION.—

(1) IN GENERAL.—In carrying out the Program, the 【Secretary】 agency head shall award financial assistance for a period of not less than 5 and not more than 7 years to a person or group of persons to assist the organization in planning, establishing, or supporting a center for manufacturing innovation.

(2) APPLICATION.—A person or group of persons seeking financial assistance under paragraph (1) shall submit to the 【Secretary】 agency head an application therefor at such time, in such manner, and containing such information as the 【Secretary】 agency head may require. The application shall, at a minimum, describe the specific sources and amounts of non-

Federal financial support for the center on the date financial assistance is sought, as well as the anticipated sources and amounts of non-Federal financial support during the period for which the center could be eligible for continued Federal financial assistance under this section.

(3) OPEN PROCESS.—In soliciting applications for financial assistance under paragraph (1), the Secretary shall ensure an open process that will allow for the consideration of all applications relevant to advanced manufacturing regardless of technology area.

(4) SELECTION.—

[(A) COMPETITIVE, MERIT REVIEW.—In awarding financial assistance under paragraph (1), the Secretary shall use a competitive, merit review process that includes peer review by a diverse group of individuals with relevant expertise from both the private and public sectors.]

(A) *COMPETITIVE, MERIT REVIEW.—In awarding financial assistance under paragraph (1), the agency head shall—*

(i) use a competitive, merit review process that includes peer review by a diverse group of individuals with relevant expertise from both the private and public sectors; and

(ii) ensure that the technology focus of a center for manufacturing innovation does not substantially duplicate the technology focus of any other center for manufacturing innovation.

(B) PARTICIPATION IN PROCESS.—

(i) IN GENERAL.—No political appointee may participate on a peer review panel. The [Secretary] *agency head* shall implement a conflict of interest policy that ensures public transparency and accountability, and requires full disclosure of any real or potential conflicts of interest on the parts of individuals that participate in the merit selection process.

(ii) DEFINITION.—For purposes of this subparagraph, the term “political appointee” means any individual who—

(I) is employed in a position described under sections 5312 through 5316 of title 5, United States Code, (relating to the Executive Schedule);

(II) is a limited term appointee, limited emergency appointee, or noncareer appointee in the Senior Executive Service, as defined under paragraphs (5), (6), and (7), respectively, of section 3132(a) of title 5, United States Code; or

(III) is employed in a position in the executive branch of the Government of a confidential or policy-determining character under schedule C of subpart C of part 213 of title 5 of the Code of Federal Regulations.

[(C) PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.—For each award of financial assistance under paragraph (1), the Secretary shall—

[(i) make publicly available at the time of the award a description of the bases for the award, including an

explanation of the relative merits of the winning applicant as compared to other applications received, if applicable; and

[(ii) develop and implement metrics-based performance measures to assess the effectiveness of the activities funded.]

(C) *PERFORMANCE MEASUREMENT, TRANSPARENCY, AND ACCOUNTABILITY.*—For each award of financial assistance under paragraph (1), the agency head shall develop and implement metrics-based performance standards to assess the effectiveness of activities funded in making progress toward the purposes of the Program.

(D) *COLLABORATION.*—In awarding financial assistance under paragraph (1), [the Secretary shall, acting through the National Program Office established under subsection (f)(1), collaborate] agency head, in coordination with the National Program Office, as appropriate, shall collaborate with Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing.

(E) *CONSIDERATIONS.*—In selecting a person who submitted an application under paragraph (2) for an award of financial assistance under paragraph (1), the [Secretary] agency head shall consider, at a minimum, the following:

(i) The potential of the center for manufacturing innovation to advance domestic manufacturing and the likelihood of economic impact, including the creation or preservation of jobs, in the predominant focus areas of the center for manufacturing innovation.

(ii) The commitment of continued financial support, advice, participation, and other contributions from non-Federal sources, to provide leverage and resources to promote a stable and sustainable business model without the need for long-term Federal funding.

(iii) Whether the financial support provided to the center for manufacturing innovation from non-Federal sources significantly exceeds the requested Federal financial assistance.

(iv) How the center for manufacturing innovation will increase the non-Federal investment in advanced manufacturing research in the United States.

(v) How the center for manufacturing innovation will engage with small and medium-sized manufacturing enterprises, to improve the capacity of such enterprises to commercialize new processes and technologies.

(vi) How the center for manufacturing innovation will carry out educational and workforce activities that meet industrial needs related to the predominant focus areas of the center.

(vii) How the center for manufacturing innovation will advance economic competitiveness and generate substantial benefits to the Nation that extend beyond the direct return to participants in the Program.

(viii) Whether the predominant focus of the center for manufacturing innovation is a manufacturing proc-

ess, novel material, enabling technology, supply chain integration methodology, or other relevant aspect of advanced manufacturing that has not already been commercialized, marketed, distributed, or sold by another entity.

(ix) How the center for manufacturing innovation will strengthen and leverage the assets of a region.

(x) How the center for manufacturing will encourage the education and training of veterans and individuals with disabilities.

(5) LIMITATIONS ON AWARDS.—

【(A) IN GENERAL.—No award of financial assistance may be made under paragraph (1) to a center of manufacturing innovation after the 7-year period beginning on the date on which the Secretary first awards financial assistance to that center under that paragraph.】

(A) TERM OF AWARD.—

(i) *IN GENERAL.*—*Subject to clause (ii), an award made to a center for manufacturing innovation may be renewed for an additional period not to exceed the duration of the original funding award, subject to a rigorous merit review. In awarding additional funds, the agency head shall consider the extent to which the center has made progress in achieving the purposes described in subsection (a) and carrying out the activities specified in subsection (c)(2).*

(ii) *EXISTING CENTERS.*—*Notwithstanding clause (i), a center already in existence or undergoing a renewal process on the date of enactment of the American Manufacturing Leadership Act—*

(I) may continue to receive support for the duration of the original funding award beginning on the date of establishment of that center; and

(II) shall be eligible for renewal of that funding pursuant to clause (i).

(B) MATCHING FUNDS AND PREFERENCES.—The total Federal financial assistance awarded to a center of manufacturing innovation, including the financial assistance under paragraph (1), in a given year shall not exceed 50 percent of the total funding of the center in that year, except that the 【Secretary】 *agency head* may make an exception in the case of large capital facilities or equipment purchases. The 【Secretary】 *agency head* shall give weighted preference to applicants seeking less than the maximum Federal share of funds allowed under this paragraph.

(C) FUNDING DECREASE.—The amount of financial assistance provided to a center of manufacturing innovation under paragraph (1) shall decrease after the second year of funding for the center, and shall continue to decrease thereafter in each year in which financial assistance is provided, unless the 【Secretary】 *agency head* determines that—

(i) the center is otherwise meeting its stated goals and metrics under this section;

(ii) unforeseen circumstances have altered the center's anticipated funding; and

(iii) the center can identify future non-Federal funding sources that would warrant a temporary exemption from the limitations established in this subparagraph.

[(e) FUNDING.—

[(1) GENERAL RULE.—Except as provided in paragraph (2), no funds are authorized to be appropriated by the Revitalize American Manufacturing and Innovation Act of 2014 for carrying out this section.

[(2) AUTHORITY.—

[(A) NIST INDUSTRIAL TECHNICAL SERVICES ACCOUNT.—

To the extent provided for in advance by appropriations Acts, the Secretary may use not to exceed \$5,000,000 for each of the fiscal years 2015 through 2024 to carry out this section from amounts appropriated to the Institute for Industrial Technical Services.

[(B) ENERGY EFFICIENCY AND RENEWABLE ENERGY ACCOUNT.—To the extent provided for in advance by appropriations Acts, the Secretary of Energy may transfer to the Institute not to exceed \$250,000,000 for the period encompassing fiscal years 2015 through 2024 for the Secretary to carry out this section from amounts appropriated for advanced manufacturing research and development within the Energy Efficiency and Renewable Energy account for the Department of Energy.]

(e) *GRANT PROGRAM FOR PUBLIC SERVICE ACTIVITIES FOR CENTERS FOR MANUFACTURING INNOVATION WITHOUT FEDERAL FUNDING.*—*The Secretary may award grants on a competitive basis to centers of manufacturing innovation that are no longer recognized as such under subsection (c)(3)(C) to carry out workforce development, outreach to small- and medium-sized manufacturers, and other activities that—*

(1) *are determined by the Secretary to be in the national interest; and*

(2) *are unlikely to receive private sector financial support.*

(f) NATIONAL PROGRAM OFFICE.—

(1) ESTABLISHMENT.—The Secretary shall establish, within the Institute, the National Office of the Network for Manufacturing Innovation Program (referred to in this section as the “National Program Office”), which shall oversee and carry out the Program.

(2) FUNCTIONS.—The functions of the National Program Office are—

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

(B) to enter into memorandums of understanding with Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing, to carry out the purposes described in subsection (a)(2);

(C) to develop, not later than 1 year after the date of enactment of the Revitalize American Manufacturing and Innovation Act of 2014, and update not less frequently than

once every 3 years thereafter, a strategic plan to guide the Program;

(D) to establish such procedures, processes, and criteria as may be necessary and appropriate to maximize cooperation and coordinate the activities of the Program with programs and activities of other Federal departments and agencies whose missions contribute to or are affected by advanced manufacturing;

(E) to establish a clearinghouse of public information related to the activities of the Program; **[and]**

(F) to act as a convener of the Network**【.】**;

(G) to work with non-sponsoring Federal agencies to explore and develop options for sponsoring centers for manufacturing innovation at such agencies;

(H) to work with sponsoring Federal agencies to develop and implement network-wide performance goals with measurable targets and timelines;

(I) to help develop pilot programs that may be implemented by the centers for manufacturing innovation to address specific purposes of the Program, including to accelerate technology transfer to the private sector; and

(J) to identify and disseminate best practices for workforce education and training across centers for manufacturing innovation and further enhance collaboration among centers for manufacturing innovation in developing and implementing such practices.

(3) **RECOMMENDATIONS.**—In developing and updating the strategic plan under paragraph (2)(C), the Secretary shall solicit recommendations and advice from a wide range of stakeholders, including industry, small and medium-sized manufacturing enterprises, research universities, community colleges, and other relevant organizations and institutions on an ongoing basis.

(4) **REPORT TO CONGRESS.**—Upon completion, the Secretary shall transmit the strategic plan required under paragraph (2)(C) to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives.

【(5) HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.—The Secretary shall ensure that the National Program Office incorporates the Hollings Manufacturing Extension Partnership into Program planning to ensure that the results of the Program reach small and medium-sized entities.**】**

(5) HOLLINGS MANUFACTURING EXTENSION PARTNERSHIP.—*The Secretary shall ensure that the National Program Office incorporates the Hollings Manufacturing Extension Partnership into Program planning to ensure—*

(A) significant outreach to, participation of, and engagement of small- and medium-sized manufacturers in centers for manufacturing innovation across the entirety of the manufacturing supply chain; and

(B) that the results of the Program, including technologies developed by the Program, reach small- and medium-sized manufacturers and that such entities have ac-

cess to technical assistance, as appropriate, in deploying those technologies.

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

(g) **REPORTING AND AUDITING.**—

(1) **ANNUAL REPORTS TO THE SECRETARY.**—

(A) **IN GENERAL.**—**【**The Secretary shall require each recipient of financial assistance under subsection (d)(1) to annually submit a report to the Secretary**】** *Each agency head shall require each recipient of financial assistance from that agency under subsection (d)(1) and any other manufacturing centers considered to be centers for manufacturing innovation pursuant to subsection (c)(3) to annually submit to the appropriate agency head a report that describes the finances and performance of the center for manufacturing innovation for which such assistance was awarded. Each agency head shall submit such reports to the Secretary.*

(B) **ELEMENTS.**—Each report submitted under subparagraph (A) shall include—

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

(ii) consistent with the metrics-based performance measures developed and implemented by the Secretary under this section, a description of the performance of the center for manufacturing innovation with respect to—

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

(II) how the center for manufacturing innovation has furthered the purposes described in subsection (a)(2).

(2) **ANNUAL REPORTS TO CONGRESS.**—

(A) **IN GENERAL.**—Not less frequently than once each year until December 31, 2024, the Secretary shall submit a report to Congress that describes the performance of the Program during the most recent 1-year period.

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

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

(ii) an accounting of the funds expended by the Secretary under the Program, including any temporary exemptions granted from the requirements of subsection (d)(5)(C);

(iii) an assessment of the participation in, and contributions to, the Network by any centers for manufacturing innovation not receiving financial assistance under subsection (d)(1); and

(iv) an assessment of the Program with respect to meeting the purposes described in subsection (a)(2).

【(3) **ASSESSMENTS BY GAO.**—

[(A) ASSESSMENTS.—Not less frequently than once every 2 years, the Comptroller General shall submit to Congress an assessment of the operation of the Program during the most recent 2-year period.]

[(B) FINAL ASSESSMENT.—Not later than December 31, 2024, the Comptroller General shall submit to Congress a final report regarding the overall success of the Program.]

[(C) ELEMENTS.—Each assessment submitted under subparagraph (A) or (B) shall include, for the period covered by the report—

[(i) a review of the management, coordination, and industry utility of the Program;

[(ii) an assessment of the extent to which the Program has furthered the purposes described in subsection (a)(2);

[(iii) such recommendations for legislative and administrative action as the Comptroller General considers appropriate to improve the Program; and

[(iv) an assessment as to whether any prior recommendations for improvement made by the Comptroller General have been implemented or adopted.]]

(3) ASSESSMENTS BY GAO.—

(A) ASSESSMENTS.—*Not less frequently than once every 3 years, the Comptroller General shall submit to Congress an assessment of the operation of the Program during the most recent 3-year period, including an assessment of the progress made towards achieving the goals specified in the national strategic plan for advanced manufacturing under section 102(b)(7) of the America COMPETES Reauthorization Act of 2010 (42 U.S.C. 6622(b)(7)).*

(B) ELEMENTS.—*Each assessment submitted under subparagraph (A) shall include, for the period covered by the report—*

(i) a review of the management, coordination, and industry utility of the Program;

(ii) an assessment of the extent to which the Program has furthered the purposes described in subsection (a)(2);

(iii) such recommendations for legislative and administrative action as the Comptroller General considers appropriate to improve the Program; and

(iv) an assessment as to whether any prior recommendations for improvement made by the Comptroller General have been implemented or adopted.

(h) ADDITIONAL AUTHORITIES.—

(1) APPOINTMENT OF PERSONNEL AND CONTRACTS.—The Secretary may appoint such personnel and enter into such contracts, financial assistance agreements, and other agreements as the Secretary considers necessary or appropriate to carry out the Program, including support for research and development activities involving a center for manufacturing innovation.

(2) TRANSFER OF FUNDS.—Of amounts available under the authority provided by [subsection (e)] *subsection (k)*, the Secretary may transfer to other Federal agencies such sums as the

Secretary considers necessary or appropriate to carry out the Program. No funds so transferred may be used to reimburse or otherwise pay for the costs of financial assistance incurred or commitments of financial assistance made prior to the date of enactment of the Revitalize American Manufacturing and Innovation Act of 2014.

(3) **AUTHORITY OF OTHER AGENCIES.**—In the event that the Secretary exercises the authority to transfer funds to another agency under paragraph (2), such agency may accept such funds to award and administer, under the same conditions and constraints applicable to the Secretary, all aspects of financial assistance awards under this section.

(4) **USE OF RESOURCES.**—In furtherance of the purposes of the Program, the Secretary may use, with the consent of a covered entity and with or without reimbursement, the land, services, equipment, personnel, and facilities of such covered entity.

(5) **ACCEPTANCE OF RESOURCES.**—In addition to amounts appropriated to carry out the Program, the Secretary may accept funds, services, equipment, personnel, and facilities from any covered entity to carry out the Program, subject to the same conditions and constraints otherwise applicable to the Secretary under this section and such funds may only be obligated to the extent provided for in advance by appropriations Acts.

(6) **COVERED ENTITY.**—For purposes of this subsection, a covered entity is any Federal department, Federal agency, instrumentality of the United States, State, local government, tribal government, territory, or possession of the United States, or of any political subdivision thereof, or international organization, or any public or private entity or individual.

(6) **COLLABORATIONS WITH OTHER FEDERAL AGENCIES.**—*The Secretary shall collaborate with Federal agencies whose missions contribute to, or are affected by, advanced manufacturing to identify and leverage existing resources at such Federal agencies to assist centers of manufacturing innovation in carrying out the purposes of the program specified in subsection (a)(2). Such existing resources may include programs—*

(A) at the Department of Labor relating to labor and apprenticeships;

(B) at the Economic Development Administration relating to regional innovation, such as the Regional Innovation Strategies program;

(C) at the Department of Education relating to workforce development, education, training, and retraining;

(D) at the Department of Defense relating to procurement and other authorities of the Department of Defense;

(E) at the Food and Drug Administration relating to biopharmaceutical manufacturing;

(F) at the National Science Foundation, including the Advanced Technological Education program;

(G) at the National Aeronautics and Space Administration relating to procurement, workforce development, education, training, and retraining; and

(H) additional programs that the Secretary determines are appropriate to support the activities of existing centers for manufacturing innovation.

(i) **PATENTS.**—Chapter 18 of title 35, United States Code, shall apply to any funding agreement (as defined in section 201 of that title) awarded to new or existing centers for manufacturing innovation.

(j) **DEFINITIONS.**—*In this section:*

(1) **AGENCY HEAD.**—*The term “agency head” means the head of a Federal agency that is providing financial assistance for a center of manufacturing innovation, including the Secretary of Commerce and the Secretary of Energy.*

(2) **REGIONAL INNOVATION CLUSTER.**—*The term “regional innovation cluster” has the meaning given such term in section 27(f)(1) of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3722(f)(1)).*

(k) **AUTHORIZATION OF APPROPRIATIONS.**—

(1) **NIST.**—*There are authorized to be appropriated to the Secretary to carry out this section \$25,000,000 for each of fiscal years 2020 through 2024.*

(2) **RESERVATION.**—*Of the amount made available under paragraph (1) the Secretary shall reserve not less than \$5,000,000 for the National Office of the Network for Manufacturing Innovation Program established under subsection (f).*

(3) **DEPARTMENT OF ENERGY.**—*For centers of manufacturing innovation operated by the Department of Energy, there are authorized to be appropriated to the Secretary of Energy—*

(A) \$70,000,000 for each of fiscal years 2020, 2021, and 2022; and

(B) \$84,000,000 for each of fiscal years 2023 and 2024.

* * * * *

STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980

* * * * *

SEC. 27. REGIONAL INNOVATION PROGRAM.

(a) **ESTABLISHMENT.**—The Secretary shall establish a regional innovation program to encourage and support the development of regional innovation strategies, including regional innovation clusters.

(b) **CLUSTER GRANTS.**—

(1) **IN GENERAL.**—As part of the program established under subsection (a), the Secretary may award grants on a competitive basis to eligible recipients for activities relating to the formation and development of regional innovation clusters.

(2) **PERMISSIBLE ACTIVITIES.**—Grants awarded under this subsection may be used for activities determined appropriate by the Secretary, including the following:

(A) Feasibility studies.

(B) Planning activities.

(C) Technical assistance.

(D) Developing or strengthening communication and collaboration between and among participants of a regional innovation cluster.

(E) Attracting additional participants to a regional innovation cluster.

(F) Facilitating market development of products and services developed by a regional innovation cluster, including through demonstration, deployment, technology transfer, and commercialization activities.

(G) Developing relationships between a regional innovation cluster and entities or clusters in other regions.

(H) Interacting with the public and State and local governments to meet the goals of the cluster.

(I) Developing relationships at the local level to build supply chains and use existing capabilities of entities operating on that level to bring economic growth to suburban and rural areas.

(3) ELIGIBLE RECIPIENT DEFINED.—In this subsection, the term “eligible recipient” means—

(A) a State;

(B) an Indian tribe;

(C) a city or other political subdivision of a State;

(D) an entity that—

(i) is a nonprofit organization, an institution of higher education, a public-private partnership, a science or research park, a Federal laboratory, or an economic development organization or similar entity; and

(ii) has an application that is supported by a State or a political subdivision of a State; or

(E) a consortium of any of the entities described in subparagraphs (A) through (D).

(4) APPLICATION.—

(A) IN GENERAL.—An eligible recipient shall submit an application to the Secretary at such time, in such manner, and containing such information and assurances as the Secretary may require.

(B) COMPONENTS.—The application shall include, at a minimum, a description of the regional innovation cluster supported by the proposed activity, including a description of—

(i) whether the regional innovation cluster is supported by the private sector, State and local governments, and other relevant stakeholders;

(ii) how the existing participants in the regional innovation cluster will encourage and solicit participation by all types of entities that might benefit from participation, including newly formed entities and those rival existing participants;

(iii) the extent to which the regional innovation cluster is likely to stimulate innovation and have a positive impact on regional economic growth and development;

(iv) whether the participants in the regional innovation cluster have access to, or contribute to, a well-trained workforce;

(v) whether the participants in the regional innovation cluster are capable of attracting additional funds from non-Federal sources; and

(vi) the likelihood that the participants in the regional innovation cluster will be able to sustain activities once grant funds under this subsection have been expended.

(C) SPECIAL CONSIDERATION.—The Secretary shall give special consideration to applications from regions that contain communities negatively impacted by trade.

(5) SPECIAL CONSIDERATION.—The Secretary shall give special consideration to an eligible recipient who agrees to collaborate with local workforce investment area boards.

(6) COST SHARE.—The Secretary may not provide more than 50 percent of the total cost of any activity funded under this subsection.

(7) OUTREACH TO RURAL COMMUNITIES.—The Secretary shall conduct outreach to public and private sector entities in rural communities to encourage those entities to participate in regional innovation cluster activities under this subsection.

(8) FUNDING.—The Secretary may accept funds from other Federal agencies to support grants and activities under this subsection.

(c) REGIONAL INNOVATION RESEARCH AND INFORMATION PROGRAM.—

(1) IN GENERAL.—As part of the program established under subsection (a), the Secretary shall establish a regional innovation research and information program—

(A) to gather, analyze, and disseminate information on best practices for regional innovation strategies (including regional innovation clusters), including information relating to how innovation, productivity, and economic development can be maximized through such strategies;

(B) to provide technical assistance, including through the development of technical assistance guides, for the development and implementation of regional innovation strategies (including regional innovation clusters);

(C) to support the development of relevant metrics and measurement standards to evaluate regional innovation strategies (including regional innovation clusters), including the extent to which such strategies stimulate innovation, productivity, and economic development; and

(D) to collect and make available data on regional innovation cluster activity in the United States, including data on—

(i) the size, specialization, and competitiveness of regional innovation clusters;

(ii) the regional domestic product contribution, total jobs and earnings by key occupations, establishment size, nature of specialization, patents, Federal research and development spending, and other relevant information for regional innovation clusters; and

(iii) supply chain product and service flows within and between regional innovation clusters.

(2) RESEARCH GRANTS.—The Secretary may award research grants on a competitive basis to support and further the goals of the program established under this subsection.

(3) DISSEMINATION OF INFORMATION.—Data and analysis compiled by the Secretary under the program established in this subsection shall be made available to other Federal agencies, State and local governments, and nonprofit and for-profit entities.

(4) REGIONAL INNOVATION GRANT PROGRAM.—The Secretary shall incorporate data and analysis relating to any grant under subsection (b) into the program established under this subsection.

(d) INTERAGENCY COORDINATION.—

(1) IN GENERAL.—To the maximum extent practicable, the Secretary shall ensure that the activities carried out under this section are coordinated with, and do not duplicate the efforts of, other programs at the Department of Commerce or other Federal agencies.

(2) COLLABORATION.—

(A) IN GENERAL.—The Secretary shall explore and pursue collaboration with other Federal agencies, including through multiagency funding opportunities, on regional innovation strategies.

(B) SMALL BUSINESSES.—The Secretary shall ensure that such collaboration with Federal agencies prioritizes the needs and challenges of small businesses.

(e) EVALUATION.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of the Revitalize American Manufacturing and Innovation Act of 2014, the Secretary shall enter into a contract with an independent entity, such as the National Academy of Sciences, to conduct an evaluation of the program established under subsection (a).

(2) REQUIREMENTS.—The evaluation shall include—

(A) whether the program is achieving its goals;

(B) any recommendations for how the program may be improved; and

(C) a recommendation as to whether the program should be continued or terminated.

(f) DEFINITIONS.—In this section:

(1) REGIONAL INNOVATION CLUSTER.—The term “regional innovation cluster” means a geographically bounded network of similar, synergistic, or complementary entities that—

(A) are engaged in or with a particular industry sector and its related sectors;

(B) have active channels for business transactions and communication;

(C) share specialized infrastructure, labor markets, and services; and

(D) leverage the region’s unique competitive strengths to stimulate innovation and create jobs.

(2) STATE.—The term “State” means one of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or any other territory or possession of the United States.

(g) FUNDING.—

(1) GENERAL RULE.—Except as provided in paragraph (2), no funds are authorized to be appropriated by the Revitalize American Manufacturing and Innovation Act of 2014 for carrying out this section.

(2) AUTHORITY.—To the extent provided for in advance by appropriations Acts, the Secretary may use not to exceed \$10,000,000 for each of the fiscal years 2015 through **2019** 2024 to carry out this section from amounts appropriated for economic development assistance programs.

* * * * *

XX. PROCEEDINGS OF THE FULL COMMITTEE MARKUP

.....
(Original Signature of Member)

116TH CONGRESS
1ST SESSION

H. R. _____

To amend the National Institute of Standards and Technology Act to make changes to the implementation of the network for manufacturing innovation, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Ms. STEVENS introduced the following bill; which was referred to the Committee on _____

A BILL

To amend the National Institute of Standards and Technology Act to make changes to the implementation of the network for manufacturing innovation, 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 "American Manufac-
5 turing Leadership Act".

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1 **SEC. 2. CHANGES IN IMPLEMENTATION OF NETWORK FOR**
2 **MANUFACTURING INNOVATION.**

3 Section 34 of the National Institute of Standards and
4 Technology Act (15 U.S.C. 278s) is amended—

5 (1) in subsection (a)—

6 (A) in paragraph (1), by striking “Net-
7 work for Manufacturing Innovation Program”
8 and inserting “Manufacturing USA Program”;
9 and

10 (B) in paragraph (2)—

11 (i) in subparagraph (G), by striking
12 “and” at the end;

13 (ii) in subparagraph (H), by striking
14 the period at the end and inserting “;
15 and”; and

16 (iii) by adding at the end the fol-
17 lowing:

18 “(I) to contribute to the development of re-
19 gional manufacturing innovation clusters across
20 the Nation;”;

21 (2) in subsection (c)—

22 (A) in paragraph (1), by striking “Sec-
23 retary” each place it appears in subparagraph
24 (C) and (D) and inserting “agency head”;

25 (B) in paragraph (2)—

26 (i) by striking subparagraph (E);

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1 (ii) by redesignating subparagraphs
2 (A), (B), (C), and (D) as clauses (i), (ii),
3 (iii), and (iv), respectively, and moving the
4 margins of such clauses (as so redesign-
5 nated) two ems to the right;

6 (iii) in the matter preceding clause (i)
7 (as so redesignated), by striking “Activities
8 of a center for manufacturing innovation
9 may include” and inserting “(A) RE-
10 QUIRED ACTIVITIES.—Activities of a center
11 for manufacturing innovation shall in-
12 clude”;

13 (iv) in clause (ii), as so redesignated,
14 by inserting before the period at the end
15 the following: “addressing workforce needs
16 through training and education programs
17 at all appropriate education levels”;

18 (v) in clause (iii), as so redesignated,
19 by inserting before the period at the end
20 the following: “, as appropriate”;

21 (vi) by inserting after clause (iv) (as
22 so redesignated) the following:

23 “(v) Development of roadmaps with
24 respect to certain technology areas that
25 take into account the research and develop-

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1 ment undertaken at other centers for man-
2 ufacturing innovation and Federal agencies
3 with respect to such areas to avoid duplica-
4 tion of effort and to ensure that research
5 and development undertaken at such other
6 centers and Federal agencies may be used
7 for future, later-stage work at the centers
8 for manufacturing innovation.”; and

9 (vii) by adding at the end the fol-
10 lowing:

11 “(B) PERMISSIBLE ACTIVITIES.—Activities
12 of a center for manufacturing innovation may
13 include such other activities as the agency head,
14 in consultation with Federal departments and
15 agencies whose missions contribute to, or are
16 affected by, advanced manufacturing, considers
17 consistent with the purposes described in sub-
18 section (a)(2).”; and

19 (C) in paragraph (3), by adding at the end
20 the following:

21 “(C) APPLICATION.—Effective beginning
22 on the date of the enactment of the American
23 Manufacturing Leadership Act, a manufac-
24 turing center shall be subject to subsections
25 (a)(2), (c), and (d) in the same manner and to

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1 the same extent as such provisions apply to a
2 center for manufacturing innovation established
3 pursuant to this section if such center—

4 “(i)(I) is, as of such date of enact-
5 ment, considered a center for manufac-
6 turing innovation under subparagraph (A)
7 or recognized as a center for manufac-
8 turing innovation under subparagraph (B);
9 and

10 “(II) as of such date of enactment, re-
11 ceives Federal financial assistance under
12 subsection (d) or otherwise consistent with
13 the purposes of this section; or

14 “(ii) is under pending agency review
15 for such recognition as of such date of en-
16 actment.”;

17 (3) in subsection (d)—

18 (A) in paragraph (1)—

19 (i) by striking “Secretary” and insert-
20 ing “agency head”; and

21 (ii) by inserting “for a period of not
22 less than 5 and not more than 7 years”
23 after “financial assistance”;

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1 (B) in paragraph (2), by striking “Sec-
2 retary” each place it appears and inserting
3 “agency head”;

4 (C) in paragraph (4)—

5 (i) by amending subparagraph (A) to
6 read as follows:

7 “(A) COMPETITIVE, MERIT REVIEW.—In
8 awarding financial assistance under paragraph
9 (1), the agency head shall—

10 “(i) use a competitive, merit review
11 process that includes peer review by a di-
12 verse group of individuals with relevant ex-
13 pertise from both the private and public
14 sectors; and

15 “(ii) ensure that the technology focus
16 of a center for manufacturing innovation
17 does not substantially duplicate the tech-
18 nology focus of any other center for manu-
19 facturing innovation.”;

20 (ii) in subparagraphs (B)(i), by strik-
21 ing “Secretary” each place it appears and
22 inserting “agency head”;

23 (iii) by amending subparagraph (C) to
24 read as follows:

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1 “(C) PERFORMANCE MEASUREMENT,
2 TRANSPARENCY, AND ACCOUNTABILITY.—For
3 each award of financial assistance under para-
4 graph (1), the agency head shall develop and
5 implement metrics-based performance standards
6 to assess the effectiveness of activities funded in
7 making progress toward the purposes of the
8 Program.”;

9 (iv) in subparagraph (D), by striking
10 “the Secretary shall” and all that follows
11 through “collaborate” and inserting the
12 following: “agency head, in coordination
13 with the National Program Office, as ap-
14 propriate, shall collaborate”; and

15 (v) in subparagraph (E), by striking
16 “Secretary” each place it appears and in-
17 serting “agency head”; and

18 (D) in paragraph (5)—

19 (i) by amending subparagraph (A) to
20 read as follows:

21 “(A) TERM OF AWARD.—

22 “(i) IN GENERAL.—Subject to clause
23 (ii), an award made to a center for manu-
24 facturing innovation may be renewed for
25 an additional period not to exceed the du-

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1 ration of the original funding award, sub-
2 ject to a rigorous merit review. In award-
3 ing additional funds, the agency head shall
4 consider the extent to which the center has
5 made progress in achieving the purposes
6 described in subsection (a) and carrying
7 out the activities specified in subsection
8 (e)(2).

9 “(ii) EXISTING CENTERS.—Notwith-
10 standing clause (i), a center already in ex-
11 istence or undergoing a renewal process on
12 the date of enactment of the _____
13 Act—

14 “(I) may continue to receive sup-
15 port for the duration of the original
16 funding award beginning on the date
17 of establishment of that center; and

18 “(II) shall be eligible for renewal
19 of that funding pursuant to clause
20 (i).”; and

21 (ii) in subparagraphs (B) and (C), by
22 striking “Secretary” each place it appears
23 and inserting “agency head”;

24 (4) by striking subsection (e);

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1 (5) by redesignating subsections (f), (g), (h),
2 and (i) as subsections (c), (f), (g), and (h), respec-
3 tively;

4 (6) in subsection (e) (as so redesignated)—

5 (A) in paragraph (2)—

6 (i) in subparagraph (E), by striking
7 “and” at the end;

8 (ii) in subparagraph (F), by striking
9 the period at the end and inserting a semi-
10 colon; and

11 (iii) by adding at the end the fol-
12 lowing:

13 “(H) to work with non-sponsoring Federal
14 agencies to explore and develop options for
15 sponsoring centers for manufacturing innova-
16 tion at such agencies;

17 “(I) to work with sponsoring Federal agen-
18 cies to develop and implement network-wide
19 performance goals with measurable targets and
20 timelines;

21 “(J) to help develop pilot programs that
22 may be implemented by the centers for manu-
23 facturing innovation such to address specific
24 purposes of the Program, including to accel-

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1 erate technology transfer to the private sector;
2 and

3 “(K) to identify and disseminate best
4 workforce education and training practices
5 across centers for manufacturing innovation
6 and further enhance collaboration among cen-
7 ters for manufacturing innovation in developing
8 and implementing such programs.”; and

9 (B) by amending paragraph (5) to read as
10 follows:

11 “(5) HOLLINGS MANUFACTURING EXTENSION
12 PARTNERSHIP.—The Secretary shall ensure that the
13 National Program Office incorporates the Hollings
14 Manufacturing Extension Partnership into Program
15 planning to ensure—

16 “(A) significant outreach to, participation
17 of, and engagement of small- and medium-sized
18 manufacturers in centers for manufacturing in-
19 novation across the entirety of the manufac-
20 turing supply chain; and

21 “(B) that the results of the Program, in-
22 cluding technologies developed by the Program,
23 reach small- and medium-sized manufacturers
24 and that such entities have access to technical

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1 assistance, as appropriate, in deploying those
2 technologies.”;

3 (7) in subsection (f) (as so redesignated)—

4 (A) in paragraph (1)(A)—

5 (i) by striking “The Secretary” and
6 all that follows through “report to the Sec-
7 retary” and inserting the following: “Each
8 agency head shall require each recipient of
9 financial assistance from that agency
10 under subsection (d)(1) and any other
11 manufacturing centers considered to be
12 centers for manufacturing innovation pur-
13 suant to subsection (c)(3) to annually sub-
14 mit to the appropriate agency head a re-
15 port”; and

16 (ii) by adding at the end the fol-
17 lowing: “Each agency head shall submit
18 such reports to the Secretary.”; and

19 (B) by amending paragraph (3) to read as
20 follows:

21 “(3) ASSESSMENTS BY GAO.—

22 “(A) ASSESSMENTS.—Not less frequently
23 than once every 3 years, the Comptroller Gen-
24 eral shall submit to Congress an assessment of
25 the operation of the Program during the most

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1 recent 3-year period, including an assessment of
2 the progress made towards achieving the goals
3 specified in the national strategic plan for ad-
4 vanced manufacturing under section 102(b)(7)
5 of the America COMPETES Reauthorization
6 Act of 2010 (42 U.S.C. 6622(b)(7)).

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

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

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

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

20 “(iv) an assessment as to whether any
21 prior recommendations for improvement
22 made by the Comptroller General have
23 been implemented or adopted.”;

24 (8) in subsection (g) (as so redesignated)—

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1 (A) in paragraph (2), by striking “sub-
2 section (e)” and inserting “subsection (j)”; and

3 (B) by adding at the end the following:

4 “(6) COLLABORATIONS WITH OTHER FEDERAL
5 AGENCIES.—The Secretary shall collaborate with
6 Federal agencies whose missions contribute to, or
7 are affected by, advanced manufacturing to identify
8 and leverage existing resources at such Federal
9 agencies to assist centers of manufacturing innova-
10 tion in carrying out the purposes of the program
11 specified in subsection (a)(2). Such existing re-
12 sources may include programs—

13 “(A) at the Department of Labor relating
14 to labor and apprenticeships;

15 “(B) at the Economic Development Ad-
16 ministration relating to regional innovation,
17 such as the Regional Innovation Strategies pro-
18 gram;

19 “(C) at the Department of Education re-
20 lating to workforce development, education,
21 training, and retraining;

22 “(D) at the Department of Defense relat-
23 ing to procurement and other authorities of the
24 Department of Defense;

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1 “(E) at the Food and Drug Administration
2 relating to biopharmaceutical manufacturing;

3 “(F) at the National Science Foundation,
4 including the Advanced Technological Edu-
5 cation program; and

6 “(G) additional programs that the Sec-
7 retary determines are appropriate to support
8 the activities of existing centers for manufac-
9 turing innovation.”; and

10 (9) by adding at the end the following:

11 “(i) DEFINITIONS.—In this section:

12 “(1) AGENCY HEAD.—The term ‘agency head’
13 means the head of a Federal agency that is pro-
14 viding financial assistance for a center of manufac-
15 turing innovation, including the Secretary of Com-
16 merce and the Secretary of Energy.

17 “(2) REGIONAL INNOVATION CLUSTER.—The
18 term ‘regional innovation cluster’ has the meaning
19 given such term in section 27(f)(1) of the Stevenson-
20 Wylder Technology Innovation Act of 1980 (15
21 U.S.C. 3722(f)(1)).

22 “(j) AUTHORIZATION OF APPROPRIATIONS.—

23 “(1) NIST.—There are authorized to be appro-
24 priated to the Secretary to carry out this section

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1 \$25,000,000 for each of fiscal years 2020 through
2 2024.

3 “(2) RESERVATION.—Of the amount made
4 available under paragraph (1) the Secretary shall re-
5 serve not less than \$5,000,000 for the National Of-
6 fice of the Network for Manufacturing Innovation
7 Program established under subsection (e).

8 “(3) DEPARTMENT OF ENERGY.—For centers
9 of manufacturing innovation operated by the De-
10 partment of Energy, there are authorized to be ap-
11 propriated to the Secretary of Energy—

12 “(A) \$70,000,000 for each of fiscal years
13 2020 and 2021; and

14 “(B) \$84,000,000 for each of fiscal years
15 2022 and 2023.”.

16 **SEC. 3. INCREASED EMPHASIS ON REGIONAL INNOVATION**
17 **WITHIN AND EXTENSION OF REGIONAL INNO-**
18 **VATION PROGRAM.**

19 Section 27 of the Stevenson-Wydler Technology Inno-
20 vation Act of 1980 (15 U.S.C. 3722) is amended—

21 (1) in subsection (b)(2) by adding at the end
22 the following new subparagraph:

23 “(I) Developing relationships at the local
24 level to build supply chains and use existing ca-
25 pabilities of entities operating on that level to

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1 bring economic growth to suburban and rural
2 areas.”; and
3 (2) in subsection (d)(2) by striking “2019” and
4 inserting “2024”.

Chairwoman JOHNSON. Without objection, the bill is considered as read and open to amendment at any point.

I recognize Ms. Stevens for 5 minutes on the bill.

Ms. STEVENS. Thank you, Chairwoman Johnson.

We are thrilled by H.R. 2397, the *American Manufacturing Leadership Act*, this bipartisan legislation to reauthorize and strengthen the Manufacturing USA program. The Manufacturing USA program is a longstanding initiative that has gone a long way to support advanced manufacturing in various research concentrations all throughout the country.

The earliest Institute out of Manufacturing USA, America Makes, was stood up in Youngstown, Ohio, in 2012 for the purpose of propelling 3-D printing applications and workforce training models. The National Network for Manufacturing Innovation, later renamed Manufacturing USA, was formalized in the *Revitalized American and Manufacturing and Innovation Act of 2014* to support R&D, tech transfer, and R&D efforts in various research concentrations. Today, there are 14 institutes in the network, including the LIFT Institute in southeastern Michigan, LIFT standing for Lightweight Innovations.

As we heard in our Committee hearing on advanced manufacturing back in March, the strength of these institutions lies in the public-private partnership. The private partners, who contribute at least 50 percent of the cost, come together to collaborate on precompetitive R&D projects in specific technology areas. They are only able to do this because of the support from the Federal Government in the planning, development, management, and operations for each of the institutes. The Federal funding also helps research, education, and outreach activities that the private sector is unlikely to support on its own.

The Manufacturing USA Institutes provide critical U.S. global leadership in advanced manufacturing. They also serve as unique collaborative platforms. Collaboration is the way to success in the 21st century for U.S. industry and academia to exchange their expertise, to solve challenges, and push the bounds of innovation. In 2017 alone, Manufacturing USA raised almost \$180 million in investments from the private sector from nearly 1,300 manufacturers, universities, community colleges, government labs, and NGO's.

The program is making great strides in workforce development as well. For example, in 2017 the LIFT Institute reached over 160,000 students across the country through innovative web-based curricula, as well as in-person training programs. The Digital Manufacturing and Design Innovation Institute has also catalogued the job profiles specific to the digital manufacturing space and the changing nature of our transforming economy, our IOT economy, creating a taxonomy that many companies, large and small, have utilized to create workforce planning and job-training in-house, as well as planning for future hiring.

H.R. 2397, the *American Manufacturing Leadership Act*, or *AMLA*, will ensure that the program can continue to contribute to the growth of our domestic advanced manufacturing industry and an advanced manufacturing workforce to fill the high-skilled jobs of the future.

We will never be able to compete by trying to re-create yesterday. We must manufacture our future. We must continue to push the

boundaries of innovation, to grow the industries of tomorrow, to win that future. H.R. 2397 reauthorizes Manufacturing USA through the year 2024 and extends the requirements of the original RAMI act to all agencies. This is an interagency effort that sponsors centers for manufacturing innovation.

We would like to be clear today that each agency that funds institutes will continue to manage its own institutes with a significant amount of flexibility in how they do so. This legislation only seeks to standardize some of the performance metrics and reporting, strengthen coordination, increase engagement of small manufacturers to help build out the entire supply chain, and ensure each institute prioritizes education and workforce training needs specific to its own technology area.

Finally, this bill authorizes a total of \$125 million for NIST over 5 years, as well as \$378 million for the Department of Energy. These funds will enable each agency to continue funding their current institutes to stand—and to stand up at least one additional institute in Fiscal Year 2020 and each year after.

I am particularly delighted to have been joined by colleagues on both sides of the aisle to introduce H.R. 2397. I would like to thank Chairwoman Johnson, Representatives Balderson and Gonzalez. This might be one of the few instances where Ohio and Michigan really come together to win, and the sponsors of the original *RAMI Act*, Representatives Kennedy and Reed, for their partnership in leading this legislation and for being such great champions for advanced manufacturing.

Chairwoman JOHNSON. Thank you, Ms. Stevens.

Does anyone else wish to be recognized?

Mr. LAMB. Madam Chair, I have an amendment at the desk. Which we can take up later, thank you.

Chairwoman JOHNSON. Mr. Balderson.

Mr. LAMB. Too soon.

Mr. BALDERSON. Thank you, Madam Chair, and thank you to my colleague from Michigan. And one of your coaches up there is from my hometown, so I agree with you on a couple of things, so thank you.

I am a proud original cosponsor of the Research and Technology Subcommittee Chairwoman Haley Stevens' bill, the *American Manufacturing Leadership Act*. Because our Nation's economy relies on the manufacturing industry, it must prioritize policies that strengthen it.

In my home State of Ohio the manufacturing industry accounts for 16.6 of total output and employs 12.5 percent of our workforce or 692,000 employees. All told, manufacturing produced \$107 billion worth of output in Ohio in 2017 and continues to grow each day.

H.R. 2397 will strengthen our Nation's largest investment in advancing manufacturing. The Manufacturing USA program has thrived in the past 7 years since its creation and built on that success to strengthen our manufacturing workforce. This bill would reauthorize the successful Revitalize American Manufacturing and Innovation of 2014 and extend it to all agencies sponsoring centers for manufacturing innovation allowing more of those that invest in manufacturing to benefit from this program.

It would further strengthen the institutes' role in advanced manufacturing workforce development, something I am deeply passionate about, along with outreach to and inclusion of small and medium-sized businesses, which are vital to the American economy.

H.R. 2397 also puts important checks, balances, and oversight into place by encouraging the program office to develop a pilot program for the institutes, as well as identify for and—to best educate workforce training practices. It would also expand Manufacturing USA's authorities to collaborate with other agencies, including to develop network-wide performance goals.

In addition, while this bill would authorize agencies to renew institutes for an additional period of funding, allowing those institutes to meet their ultimate goals, this would only be allowed following a redress review of the institutes' progress toward meeting measurable goals.

The manufacturing industry is a pillar of the American economy and drives many of the other industries that make up our country's annual GDP. Without the manufacturing industry, the American economy would cease to exist. H.R. 2397 would expand on manufacturing programs with proven success and accelerate our Nation's progress in advancing advanced manufacturing. Ultimately, this legislation leverages existing programs across the Federal Government to help Manufacturing USA achieve its goals.

Finally, as an advocate for small business and workforce development, I'm excited that this bill expands to include more small and medium-sized manufacturing since they are the lifeline of our Nation's economy.

Once again, I thank the Chair for her support. I thank my colleague from Michigan for her leadership on this legislation and urge the Committee's supportive H.R. 2397.

With that, I yield back the balance of my time, Madam Chair.

Chairwoman JOHNSON. Thank you, Mr. Balderson. Anyone else?

The Chair recognizes Mr. Gonzalez.

Mr. GONZALEZ. Thank you, Madam Chair Johnson and Ranking Member Lucas. Thank you for being so bipartisan. This Committee gives me so much hope. I enjoy every minute I'm in here, and I know it's because the two of you are providing excellent leadership, so thank you so much.

Also, Madam Chair Stevens, for your leadership on this legislation. I also want to thank my colleagues, Congressman Balderson, Reed, and Kennedy and the Committee staff on both sides of the aisle for their tireless work on this legislation. I'm thrilled to see the implementation of provisions addressing workforce needs and that the legislation has adopted tailored strategies to reduce the growing skills gap in advanced manufacturing. I'm also pleased to see that grants awarded by using a competitive merit review process that includes expertise from both the private and public sectors.

The *American Manufacturing Leadership Act* is a good piece of legislation that prioritizes funding for small and medium-sized businesses, the real backbone and pillar of our economy. As our manufacturing sector goes, so does our economy and the ability for millions of Americans to put food on their table.

Northeast Ohio relies on the strength of our manufacturing industry with 41,000 people in my district directly working in manufacturing and contributing \$2.2 billion annually in payroll. This bill

would go a long way in helping my community maintain a competitive edge against competitors abroad. With other countries such as China and Germany having a more coordinated effort and ramping up their investments to develop advanced manufacturing technologies, we need to do more to ensure our country stays ahead of the game and prevails as the leader of the world in the invention of technologies.

Finally, I am glad we are here today working in a bipartisan way to tackle the issues of the present and future. I believe we are in a pivotal moment where new technologies in digital manufacturing, 3-D printing, and advanced robotics, just to name a few, are being deployed at a rapid pace, and whichever country or countries are able to deploy them at the fastest rate is going to win the technology race.

I encourage my colleagues to support the underlying legislation and the competitiveness of American manufacturing.

And with that, I yield back.

Chairwoman JOHNSON. Thank you, Mr. Gonzalez.

Any other Members wishing to be recognized?

Seeing none, then the first amendment on the roster is an amendment offered by the gentlelady from Michigan, and you are recognized to present your amendment.

Ms. STEVENS. Thank you, Madam Chair. I have an amendment at the desk.

Chairwoman JOHNSON. The clerk will read the amendment.

The CLERK. Amendment number 1, Manager's Amendment offered by Ms. Stevens.

[The amendment of Ms. Stevens follows:]

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AMENDMENT TO H.R. _____

OFFERED BY M. _____

**[Page and line numbers refer to text of version of RAMI__04
with a timestamp of April 25, 2019 at 5:07PM]**

Page 3, line 24, strike “certain technology areas” and insert “technology areas being pursued by that center for manufacturing innovation”.

Page 4, line 3, strike “such areas” and all that follows through “innovation” on line 8 and insert “such areas”.

Page 8, line 12, strike “the date of” and all that follows through “Act” on line 13 and insert the following: “the date of the enactment of the American Manufacturing Leadership Act”.

Page 9, line 13, strike “(H)” and insert “(G)”.

Page 9, line 23, strike “such”.

Page 9, line 17, strike “(I)” and insert “(H)”.

Page 9, line 21, strike “(J)” and insert “(I)”.

Page 10, line 3, strike “(K)” and insert “(J)”.

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Page 10, line 4, strike “workforce education and training practices” and insert “practices for workforce education and training”.

Page 10, line 8, strike “programs” and insert “practices”.

Page 15, line 13, strike “and 2021” and insert “, 2021, and 2022”.

Page 15, line 15, strike “2022 and 2023” and insert “2023 and 2024”.

Page 16, line 3, strike “subsection (d)(2)” and insert “subsection (g)(2),”.



Chairwoman JOHNSON. I ask unanimous consent to dispense with the reading, and without objection, so ordered.

I recognize the gentlelady for 5 minutes to explain her amendment.

Ms. STEVENS. My amendment makes technical and conforming corrections to the underlying bill, the *American Manufacturing Leadership Act*. This amendment also corrects an unintentional disparity where the original bill only authorized funding for the Department of Energy for 4 years, although funding for the National Institute for Science and Technology was authorized for 5 years. This is corrected, so funding for the Department of Energy is authorized for 5 years as well. And it's—I think it's Standards and Technology. Thank you.

Chairwoman JOHNSON. Thank you very much. Are there further discussions on the—

Mr. LUCAS. Madam Chair?

Chairwoman JOHNSON. Mr. Lucas.

Mr. LUCAS. Thank you, Chairwoman Johnson. This amendment provides technical changes to this legislation and incorporates the feedback from relevant stakeholders. I encourage my colleagues to support this amendment and yield back, Madam Chair.

Chairwoman JOHNSON. Thank you.

Any further comments?

Hearing none, the vote will occur on the amendment.

All those in favor, say aye.

Those opposed, no.

The ayes have it, and the amendment is agreed to.

The next amendment on the roster is an amendment offered by the gentleman from Pennsylvania, and he is recognized to offer an amendment, Mr. Lamb.

Mr. LAMB. Thank you, Madam Chairwoman. I have an amendment at the desk.

Chairwoman JOHNSON. The clerk will read the amendment.

The CLERK. Amendment number 2 offered by Mr. Lamb and Mr. Gonzalez.

[The amendment of Mr. Lamb follows:]

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AMENDMENT TO H.R. *American Leadership in Manufacturing*
ACT
 OFFERED BY Mr. Lamb of Pennsylvania and Mr. Gonzalez
of Ohio

[Page and line numbers refer to text of version of RAM1104
 with a timestamp of April 25, 2019 at 5:07PM]

Page 8, strike line 24 and all that follows through
 page 9, line 3, and insert the following (and make such
 conforming changes as may be necessary):

1 (4) by amending subsection (e) to read as follows:

2 “(e) GRANT PROGRAM FOR PUBLIC SERVICE ACTIVI-
 3 TIES FOR CENTERS FOR MANUFACTURING INNOVATION
 4 WITHOUT FEDERAL FUNDING.—The Secretary may
 5 award grants on a competitive basis to centers of manu-
 6 facturing innovation that are no longer recognized as such
 7 under subsection (e)(3)(C) to carry out workforce develop-
 8 ment, outreach to small- and medium-sized manufactur-
 9 ers, and other activities that—

10 “(1) are determined by the Secretary to be in
 11 the national interest; and

12 “(2) are unlikely to receive private sector finan-
 13 cial support.”;

Page 9, line 4, strike “subsection (e) (as so redesign-
 ated)” and insert “subsection (f)”.

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Page 11, line 3, strike “subsection (f) (as so redesignated)” and insert “subsection (g)”.

Page 12, line 24, strike “subsection (g) (as so redesignated)” and insert “subsection (h)”.

Page 13, line 2, strike “‘subsection (j)’” and insert “‘subsection (k)’”.

Page 14, line 11, strike “(i)” and insert “(j)”.

Page 14, line 22, strike “(j)” and insert “(k)”.

Page 15, line 7, strike “subsection (e)” and insert “subsection (f)”.



Chairwoman JOHNSON. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

And I recognize the gentleman to explain the amendment.

Mr. LAMB. Thank you, ma'am.

I want to thank Ms. Stevens for offering this great bill and for giving it probably the perfect title. I think that what this is really about is American leadership in manufacturing. I think for a long time we were able to get by by having a work force that basically suited the needs of manufacturing and by engaging leadership in science and basic research and making big jumps ahead, but while that was happening, a lot of other places in the world were developing entire manufacturing systems to compete with us, and it all came to a head eventually in places like Pennsylvania and Michigan and Ohio, which are well-represented on this Committee have seen a lot of loss for the past couple of generations. And entire towns that were supported by the manufacturing system we used to have, have been hollowed out and really hurt by this. Families have been hurt.

This is about one way that we can continue to lead the world is by providing jobs that actually take care of these families and support whole communities and small towns. And we've gotten away from that. And a choice faces us now of whether we're going to step up and take the lead on their behalf again in this new world, in this world in which we have lost 5 million of these manufacturing jobs as the economy has changed and globalization has happened, most of them to China.

I think we can win the jobs that are the future. We're not going to probably get those 5 million back, but we can create another five in some of the new industries that are coming. And in western Pennsylvania we have a great example of that in the Advanced Robotics Manufacturing Institute that we have mostly at Carnegie Mellon University. They have already done great work with companies across the region to help them step up and create more and more of these great family sustaining jobs in an area that is vital to our national security, as well as our economy. So we want to see these programs extended.

That's the focus of my amendment really is that these 14 manufacturing institutes that we have, Federal funding is going to dry up for some of them at some point. They were not meant to be funded fully the way they are now forever. However, some of their work must go on, and some of it is of a public good nature because they're working on problems that are longer and more difficult than any individual private sector company can do on their own.

So our goal is to have them be eligible for competitive grants from the Federal Government going forward to continue this important work both in advanced robotics like we have in western Pennsylvania but in all the areas that they focus on.

So that's the focus of this amendment. I hope that everyone will support it, and I would like to yield the balance of my time to Mr. Gonzalez from Ohio, who has helped lead on this amendment.

Chairwoman JOHNSON. Thank you, Mr. Lamb. Mr. Gonzalez.

Mr. GONZALEZ. I want to thank my colleague, Mr. Lamb, for yielding and for partnering with me on this important amendment.

I agree with everything you just said about the future of American manufacturing and why it's so important that we invest in the

future of our economy knowing that we're competing against China, that the economy is changing with automation, globalization, et cetera. We need to lead the way, and I believe that starts here.

This amendment would directly help America Makes Center located near my district in Youngstown, Ohio, which is established in 2012 to work as a national accelerator for added manufacturing and 3D Printing. America Makes should be able to continue its important work even when the Federal funding has ended, and this amendment helps the center achieve that.

Again, I encourage all my colleagues to support this amendment, I thank Mr. Lamb, and with that, I yield back.

Chairwoman JOHNSON. Thank you, Mr. Gonzalez.

Any further comments or request for recognition?

Hearing none, the vote then occurs on the amendment.

All in favor, say aye.

Those opposed, nay.

The ayes have it, and the amendment is adopted.

The next amendment on the roster is Mr. Posey's amendment, and—the gentleman from Florida, and he is recognized for an explanation.

Mr. POSEY. Thank you, Madam Chair. I have an amendment at the desk.

Chairwoman JOHNSON. The clerk will report the amendment.

The CLERK. Amendment number 3 offered by Mr. Posey and Mr. Lamb.

[The amendment of Mr. Posey and Mr. Lamb follows:]

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AMENDMENT TO H.R. _____

OFFERED BY MR. POSEY OF FLORIDA and *Rep. Conor Lamb of Pennsylvania*

Page 14, line 5, strike "and".

Page 14, after line 5, insert the following:

- 1 (G) at the National Aeronautics and Space
- 2 Administration relating to procurement, work-
- 3 force development, education, training, and re-
- 4 training; and

Page 14, line 6 strike "(G)" and insert "(H)".



Chairwoman JOHNSON. I ask unanimous consent to dispense with the reading, and without objection, so ordered.

I recognize the gentleman for 5 minutes to explain the amendment.

Mr. POSEY. Thank you, Madam Chair.

This amendment introduced by Representative Lamb and me will allow this program to corroborate with NASA. The main focus will be to strengthen advanced manufacturing and develop a highly skilled work force for NASA.

Advanced manufacturing is the use of innovative technology to improve products or processes. One type of manufacturing used by the space industry is additive manufacturing. It's a process that adds material to create an object. One subject is 3D Printing that we're all familiar with. Additive manufacturing is a gamechanger and would help keep America and particularly America's space industry in the forefront. This amendment will help NASA to train people for these high-tech jobs.

Additionally, it will help with research and development of this emerging technology. For example, this technology is being used now on the rocket engine for the Space Launch System that reduces costs and time. One part used to require over 100 welds. Now, it has only one weld. Blue Origin and SpaceX are both taking advantage of this new technology. This has decreased the time from 3 years to only one 3-month period to manufacture this particular part. This is all because of additive manufacturing.

I'd like to thank Representative Lamb for co-leading with me on this amendment, and my thanks go out to you, Madam Chair in the Ranking Member, for accepting this important amendment.

Thank you, I yield back.

Chairwoman JOHNSON. Thank you, Mr. Posey.

Any other comments on this amendment?

Hearing none, all those in favor of the amendment, say aye.

Those opposed, nay.

Hearing none, then the amendment is adopted.

We have a Weber amendment next, and—the gentleman from Texas, and he is recognized to offer the amendment.

Mr. WEBER. Thank you, Madam Chair. I have an amendment at the desk.

Chairwoman JOHNSON. The clerk will read the amendment—report the amendment.

The CLERK. Amendment number 4 offered by Mr. Weber.

[The amendment of Mr. Weber follows:]

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AMENDMENT TO H.R. "*American Manufacturing Leadership Act*"
OFFERED BY MR. WEBER OF TEXAS

[Page and line numbers refer to text of version of RAMI_04
with a timestamp of April 25, 2019 at 5:07PM]

Page 8, line 20, strike "and" at the end.

Page 8, after line 20, insert the following:

1 “(iii) SUNSET.—No award of financial
2 assistance may be made under paragraph
3 (1) to a center of manufacturing innova-
4 tion after the 7-year period beginning on
5 the date of enactment of the American
6 Manufacturing Leadership Act.”; and

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Chairwoman JOHNSON. And I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentleman for 5 minutes to explain his amendment.

Mr. WEBER. Thank you, Madam Chair.

This amendment reinstates the sunset for funding provided under this legislation. I so appreciated the gentleman from Pennsylvania Conor Lamb's comments earlier when he said programs weren't meant to be funded forever. This amendment supports the original intent of Congress when we established this program.

We provided finite, finite—and I emphasize finite resources to fund manufacturing capabilities for industry to develop new technologies, but once technologies matured, industry was intended to take the lead. Now, I'm willing to consider reauthorizing this program for a defined 7-year period, but isn't it our job as an authorizing Committee to wisely allocate Federal research dollars in the long term? And we cannot do that when programs are authorized in perpetuity.

Some of you will remember that Ronald Reagan said the closest thing on Earth to eternity was a Federal program, so we want to be careful with that. And by the way, at the end of the 7 years, Ed Perlmutter would be 73. Today's his birthday, so we want to wish him happy birthday.

We know that industry has the skills and resources to commercialize new technologies but they often lack the tools and facilities needed to develop groundbreaking technologies. So while it makes sense to invest in the kinds of capabilities and tools provided by these manufacturing innovation centers, eventually industry needs to step up to the plate as each area of technology becomes more mature. With finite dollars—again I emphasize finite—we cannot support new research programs without winding down old ones once we reach those technology goals.

If we fail to provide an end date for a program's funding, we throw a wrench in the research cycle and could actually both eliminate industry's motivation to bring these new technologies to the next stage and inhibit DOE and NIST's ability to enable innovations in new areas.

A sunset provision also forces us—that's Congress—to do our job here and regularly reevaluate the legislation we enact to make sure programs are all still operating effectively, as well as efficiently. In fact, the original sunset provision is why we're holding a markup today on a bill that includes a number of important bipartisan reforms and improvements to the original legislation. We're making those technological changes. We're mending it. We're making it better. I think regularly revisiting and updating our work is a good thing.

I believe by adopting my amendment and including a sunset after a 7-year period, we take a responsible approach to investing taxpayer dollars while retaining our ability to change course within the constantly evolving technology landscape.

So I want to encourage my colleagues to wish Ed a happy birthday and support this amendment.

Madam Chair, I yield back.

Chairwoman JOHNSON. Thank you, Mr. Weber. I recognize myself to speak on the amendment.

Unfortunately, I must oppose it. I heard what you said, and it was impressive, just not convincing. The Manufacturing USA program is the United States' largest investment in advanced manufacturing with an annual investment of Federal funding of around \$200 million. Moreover, the private sector is already matching that investment two-to-one.

Other countries recognize the value of investing in advanced manufacturing and are dedicating 10 times the amount, with Germany operating a \$2 billion network of advanced manufacturing institutes. Moreover, these countries are in it for the long term, decades even without any discussion of sunsets. They understand that technology development takes time. We didn't invent the personal computer in a day, and we should not expect the development and demonstration of advanced manufacturing techniques to occur overnight either.

Also a matter of policy I do not think we should be putting sunsets in programs that we authorize. The appropriators, with approval by the full Congress, makes decisions on an annual basis as to whether a program continues to merit Federal support. Similarly, agencies already have the authority to stop funding any Institute if it is no longer meeting the goals or if it is clear that the private sector can and will continue without Federal support.

Finally, as authorizers, we can always revisit these questions ourselves through oversight and further reauthorizations. Putting a sunset in a law preemptively is not smart policy if we are committed to ensuring the best return on our Federal investment. Securing long-term financial support for the Manufacturing USA program is our best shot for reclaiming American leadership in advanced manufacturing across the globe. For that reason, I must oppose this amendment and remind us all that this is a reauthorization that we are discussing today.

I yield back.

Mr. LUCAS. Madam Chair?

Chairwoman JOHNSON. Mr. Lucas.

Mr. LUCAS. Madam Chair, first, let me note to the Committee that I always have a certain hesitation about stepping between two Texans who are in a state of disagreement. That can be a challenging position. But I would say this amendment does restore the sunset provision of the underlying legislation, and while I'm supportive of the underlying bill, I believe we in Congress do have sometimes to make really tough choices, and that includes setting limits on how long a program can receive Federal funding.

This amendment allows for a 7-year reauthorization of funds for the Centers of Manufacturing Innovation included in this bill. But after that period it transitions funding to the private sector. Sunsets also ensure Congress does its job and regularly reviews authorization. This good government provision was included in the original legislation we seek to reauthorize today, so I see no reason why we can't support including it in today's language.

With that I encourage my colleagues to support the amendment, and I continue enthusiasm to support the underlying base bill when we're done.

I yield back, Madam Chair.

Chairwoman JOHNSON. Thank you, Mr. Lucas.

Any further presentations requested?

Hearing none, then the vote occurs on the motion of Mr. Weber's motion to put a—on his amendment.

Those in favor, say aye.

Those opposed, nay.

The nays have it.

Mr. WEBER. Madam Chair, I'd request a recorded vote.

Chairwoman JOHNSON. A recorded vote has been requested, and further proceedings will be postponed, as we announced earlier with—at the end of the meeting. Thank you, Mr. Weber. Let's see. Do you have another amendment?

Mr. WEBER. Yes, ma'am, I do. Let me jump over to it real quick.

Chairwoman JOHNSON. OK.

Mr. WEBER. I got to look to my calendar to see who else's birthday is today. I've used up Ed's.

Thank you, Chairwoman Johnson.

My amendment adds a requirement that no additional funds are authorized to carry out this legislation. Instead, my amendment directs NIST and DOE to fund the work authorized under this legislation. Oh, I'm sorry. I have an amendment at the desk. Yes.

Chairwoman JOHNSON. The clerk will report the amendment.

The CLERK. Amendment number 5 offered by Mr. Weber.

[The amendment of Mr. Weber follows:]

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AMENDMENT TO H.R. *American Manufacturing Leadership Act*
OFFERED BY MR. WEBER

[Page and line numbers refer to text of version of RAMI_04
with a timestamp of April 25, 2019 at 5:07PM]

Page 15, line 2, strike “2024.” and insert the following: “2024. Amounts made available to carry out this section shall be derived from amounts appropriated or otherwise made available to the National Institute of Standards and Technology.”.

Page 15, line 8, strike “For centers” and insert the following:

1 “(A) For centers”.

Page 15, line 12, strike “(A)” and insert “(i)”, and move the margins of such clause (as so redesignated) two ems to the right.

Page 15, line 14, strike “(B)” and insert “(ii)”, and move the margins of such clause (as so redesignated) two ems to the right.

Page 15, line 15, strike the second period at the end.

Page 15, after line 15, add the following:

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1 “(B) Amounts made available under
2 clauses (i) and (ii) of subparagraph (A) shall be
3 derived from amounts appropriated or otherwise
4 made available to the Department of Energy.

5 “(4) SPENDING LIMITATION.—No additional
6 funds are authorized to be appropriated to carry out
7 this section, and this section shall be carried out
8 using amounts otherwise made available to carry out
9 this section.”.

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Chairwoman JOHNSON. I ask unanimous consent to dispense with the reading, and then we'll ask Mr. Weber to explain his amendment.

Mr. WEBER. If you can tell me where I left off, I'll pick up there.

Chairwoman JOHNSON. I'm trying to make you forget it.

Mr. WEBER. My amendment adds a requirement that no additional funds are authorized to carry out this legislation. Instead, I want to note of course that we have limited funding, finite funding. Instead, my amendment directs NIST and DOE to fund the work authorized under this legislation using those amounts already appropriated to these agencies without increasing overall spending. Did I mention we have a finite source of money? That's what we're supposed to have.

Today, DOE's Office of Energy Efficiency and Renewable Energy, EERE, is funded at almost \$2.4 billion with a B, a budget that dwarfs those of the other applied research programs at the Department. Currently, DOE's Centers for Manufacturing Innovation are funded through this office and make up a small part of DOE's annual \$320 million in funding for advanced manufacturing research. With our national debt at \$22 trillion with a T and climbing with a C, we can't increase overall spending every time we establish priorities for Federal research programs. We just can't do that. We don't live in a world with unlimited resources, so again, it's our job to prioritize the resources we have and make sure that we are investing limited Federal dollars in programs that actually benefit the American taxpayer.

Now, I think a case can be made for prioritizing the research program and partnerships authorized in this legislation, don't misunderstand, but it's very clear that DOE already receives ample funding to maintain this program and meet the goals established in this bill without another topline spending increase.

I believe this is a commonsense proposal. It's Congress' duty, and I encourage my colleagues to support this amendment.

I yield back.

Chairwoman JOHNSON. Thank you, Mr. Weber. I recognize myself to speak on the amendment.

My colleague from Texas wants us all to think and act responsibly with Federal funds, and I am very appreciative of that and sympathetic to his point of view. However, we have different priorities about where any cuts or restrictions should apply, and this particular amendment is not one that I can support. If anything, we were very conservative in the funding level we did to recommend for this legislation. Many stakeholders are pushing us to include enough funds for many more institutes, not just a few.

As a general policy matter, I'm concerned both about imposing unfunded mandates on agencies and setting a hard cap on the program funding rather than leaving agencies some flexibility to update investment priorities as the needs occur. If we disagree with decisions being made by any agency under any administration, the Committee has the authority and the responsibility to take action at that time. However, imposing funding restrictions in advance is not a good way to support research and development and ensure success of Manufacturing USA program.

I also want to point out that we are not spending money on these bills. That is the job of the Appropriations Committee. If they de-

cide the Manufacturing USA program is worthy of additional support, they can find money in a broader array of accounts than our Committee is jurisdictionally permitted to access. I don't think we should be placing limitations on the Appropriations Committee to make these decisions.

And so for those reasons I oppose this amendment, and I yield back. Any further—

Mr. LUCAS. Madam Chair?

Chairwoman JOHNSON. Mr. Lucas.

Mr. LUCAS. Thank you, Chairwoman Johnson.

This amendment would require funding authorized in the bill to be provided from within existing authorized levels of NIST and DOE and, as with the previous amendment, I believe it's a good government provision. We do not have unlimited funds available, as our colleague from Texas has noted, and it's our job in Congress to occasionally make tough choices about our top priorities, and this amendment would allow us to specifically authorize what I believe is important manufacturing research without increasing overall spending in these agencies.

No legislation is perfect, and I am supportive of this legislation. We still have some areas of disagreement on the best way to prioritize our research, but as I close, I'd like to reiterate my gratitude to Chairwoman Johnson and Chairwoman Stevens for working with our Members and staff to incorporate many of the changes we requested in this legislation. I appreciate your commitment to moving a bipartisan bill forward through this Committee, and with that, I encourage my colleagues to support the amendment and yield back, Madam Chair.

Chairwoman JOHNSON. Thank you, Mr. Lucas.

Any further comments requested?

Hearing none, then the vote occurs on the amendment.

All in favor, say aye.

Those opposed, say no.

It appears that the noes have it.

Mr. WEBER. Madam Chair?

Chairwoman JOHNSON. Mr.—

Mr. WEBER. I would request a recorded vote.

Chairwoman JOHNSON. Thank you. Further proceedings on this will be postponed until we do the votes at the end. Thank you very much.

H.R. 1237

Chairwoman JOHNSON. We will now consider H.R. 1237, the *COAST Research Act*. The clerk will report the bill.

The CLERK. H.R. 1237.

[The bill follows:]

All in favor, say aye.

Those opposed, nay.

The ayes have it, and it's agreed to

Are there any further amendments to the bill?

If not, then a reporting quorum being present, I move that the Committee on Science, Space, and Technology report H.R. 988, as amended, to the House, with a recommendation that the bill be approved.

Those in favor of the motion will signify by saying aye.

Those opposed, nay.

The ayes have it. The bill is favorably reported.

Without objection, the motion to reconsider is laid on the table.

I ask unanimous consent that the staff be authorized to make any necessary technical and conforming changes to the bill. Without objection, so ordered.

Members will have 2 subsequent calendar days in which to submit supplementary minority or additional views on the measure.

And we're going to recess for 10 minutes, and then we'll come back and have the roll call votes, and so the purpose of making sure everyone is notified that a vote will be occurring. So we're in recess. We're trying to finish before the House goes in session.

[Recess.]

Chairwoman JOHNSON. The Committee will come to order.

We are reassembled for the consideration of two amendments. The question is on the Weber number 4 amendment, and the clerk will report—well, I guess just call the roll.

The CLERK. Chairwoman Johnson?

Chairwoman JOHNSON. No.

The CLERK. Chairwoman Johnson, no.

Ms. Lofgren?

Ms. LOFGREN. No.

The CLERK. Ms. Lofgren, no.

Mr. Lipinski?

[No response.]

The CLERK. Ms. Bonamici?

Ms. BONAMICI. No.

The CLERK. Ms. Bonamici, no.

Mr. Bera?

Mr. BERA. No.

The CLERK. Mr. Bera, no.

Mr. Lamb?

Mr. LAMB. No.

The CLERK. Mr. Lamb, no.

Mrs. Fletcher?

Mrs. FLETCHER. No.

The CLERK. Mrs. Fletcher, no.

Ms. Stevens?

Ms. STEVENS. No.

The CLERK. Ms. Stevens, no.

Ms. Horn?

Ms. HORN. No.

The CLERK. Ms. Horn, no.

Ms. Sherrill?

Ms. SHERRILL. No.

The CLERK. Ms. Sherrill, no.

Mr. Sherman?

[No response.]

The CLERK. Mr. Cohen?

Mr. COHEN. No.

The CLERK. Mr. Cohen, no.

Mr. McNerney?

Mr. MCNERNEY. No.

The CLERK. Mr. McNerney, no.

Mr. Perlmutter?

Mr. PERLMUTTER. For my good friend Mr. Weber, no.
 Mr. WEBER. Happy birthday to you, too.
 The CLERK. Mr. Perlmutter, no.
 Mr. Tonko?
 [No response.]
 The CLERK. Mr. Foster?
 Mr. FOSTER. No.
 The CLERK. Mr. Foster, no.
 Mr. Beyer?
 Mr. BEYER. No.
 The CLERK. Mr. Beyer, no.
 Mr. Crist?
 Mr. CRIST. No.
 The CLERK. Mr. Crist, no.
 Mr. Casten?
 Mr. CASTEN. No.
 The CLERK. Mr. Casten, no.
 Ms. Hill?
 [No response.]
 The CLERK. Mr. McAdams?
 Mr. MCADAMS. No.
 The CLERK. Mr. McAdams, no.
 Ms. Wexton?
 Ms. WEXTON. No.
 The CLERK. Ms. Wexton, no.
 Mr. Lucas?
 Mr. LUCAS. Aye.
 The Clerk. Mr. Lucas, aye.
 Mr. Brooks?
 Mr. BROOKS. Aye.
 The CLERK. Mr. Brooks, aye.
 Mr. Posey?
 Mr. POSEY. Aye.
 The CLERK. Mr. Posey, aye.
 Mr. Weber?
 Mr. WEBER. Aye.
 The CLERK. Mr. Weber, aye.
 Mr. Babin?
 Mr. BABIN. Aye.
 The CLERK. Mr. Babin, aye.
 Mr. Biggs?
 [No response.]
 The CLERK. Mr. Marshall?
 [No response.]
 The CLERK. Mr. Norman?
 [No response.]
 The CLERK. Mr. Cloud?
 Mr. CLOUD. Aye.
 The CLERK. Mr. Cloud, aye.
 Mr. Balderson?
 Mr. BALDERSON. Aye.
 The CLERK. Mr. Balderson, aye.
 Mr. Olson?
 Mr. OLSON. Aye.
 The CLERK. Mr. Olson, aye.

Mr. Gonzalez?
 Mr. GONZALEZ. Aye.
 The CLERK. Mr. Gonzalez, aye.
 Mr. Waltz?
 Mr. WALTZ. Aye.
 The CLERK. Mr. Waltz, aye.
 Mr. Baird?
 [No response.]
 The CLERK. Ms. Herrera Beutler?
 Ms. HERRERA BEUTLER. Yes.
 The CLERK. Ms. Herrera Butler, aye.
 Ms. González-Colón?
 Ms. GONZÁLEZ-COLÓN. Aye.
 The CLERK. Ms. González-Colón, aye.
 Chairwoman JOHNSON. Are there Members who haven't voted or would like to change their vote?
 Mr. LIPINSKI. Madam Chair?
 Chairwoman JOHNSON. Mr. Lipinski?
 Mr. LIPINSKI. No.
 The CLERK. Mr. Lipinski, no.
 Chairwoman JOHNSON. Mr. Tonko?
 Mr. TONKO. Tonko, no.
 The CLERK. Mr. Tonko, no.
 Chairwoman JOHNSON. Any other Members?
 Mr. BAIRD. Yes.
 Chairwoman JOHNSON. Mr. Baird votes aye.
 The CLERK. Mr. Baird, aye.
 Mr. BAIRD. Aye.
 Chairwoman JOHNSON. All reported, the clerk will report.
 The CLERK. Madam Chair Johnson?
 Chairwoman JOHNSON. Yes.
 The CLERK. The noes are 20 and the ayes are 13.
 Chairwoman JOHNSON. The noes have it. The amendment is not adopted.
 The vote now will occur on amendment number 5 by Mr. Weber.
 The clerk will call the roll.
 The CLERK. Chairwoman Johnson?
 Chairwoman JOHNSON. No.
 The CLERK. Chairwoman Johnson, no.
 Ms. Lofgren?
 Ms. LOFGREN. No.
 The CLERK. Ms. Lofgren, no.
 Mr. Lipinski?
 Mr. LIPINSKI. No.
 The CLERK. Mr. Lipinski, no.
 Ms. Bonamici?
 Ms. BONAMICI. No.
 The CLERK. Ms. Bonamici, no.
 Mr. Bera?
 Mr. BERA. No.
 The CLERK. Mr. Bera, no.
 Mr. Lamb?
 Mr. LAMB. No.
 The CLERK. Mr. Lamb, no.
 Mrs. Fletcher?

Mrs. FLETCHER. No.
 The CLERK. Mrs. Fletcher, no.
 Ms. Stevens?
 Ms. STEVENS. No.
 The CLERK. Ms. Stevens, no.
 Ms. Horn?
 Ms. HORN. No.
 The CLERK. Ms. Horn, no.
 Ms. Sherrill?
 Ms. SHERRILL. No.
 The CLERK. Ms. Sherrill, no.
 Mr. Sherman?
 [No response.]
 The CLERK. Mr. Cohen?
 Mr. COHEN. No.
 The CLERK. Mr. Cohen, no.
 Mr. McNerney?
 Mr. MCNERNEY. No.
 The CLERK. Mr. McNerney, no.
 Mr. Perlmutter?
 Mr. PERLMUTTER. No.
 The CLERK. Mr. Perlmutter, no.
 Mr. Tonko?
 Mr. TONKO. No.
 The CLERK. Mr. Tonko, no.
 Mr. Foster?
 Mr. FOSTER. No.
 The CLERK. Mr. Foster, no.
 Mr. Beyer?
 Mr. BEYER. No.
 The CLERK. Mr. Beyer, no.
 Mr. Crist?
 Mr. CRIST. No.
 The CLERK. Mr. Crist, no.
 Mr. Casten?
 Mr. CASTEN. No.
 The CLERK. Mr. Casten, no.
 Ms. Hill?
 [No response.]
 The CLERK. Mr. McAdams?
 Mr. MCADAMS. No.
 The CLERK. Mr. McAdams, no.
 Ms. Wexton?
 Ms. WEXTON. No.
 The CLERK. Ms. Wexton, no.
 Mr. Lucas?
 Mr. LUCAS. Aye.
 The CLERK. Mr. Lucas, aye.
 Mr. Brooks?
 Mr. BROOKS. Aye.
 The CLERK. Mr. Brooks, aye.
 Mr. Posey?
 Mr. POSEY. Aye.
 The CLERK. Mr. Posey, aye.
 Mr. Weber?

Mr. WEBER. Aye.

The CLERK. Mr. Weber, aye.

Mr. Babin?

Mr. BABIN. Aye.

The CLERK. Mr. Babin, aye.

Mr. Biggs?

[No response.]

The CLERK. Mr. Marshall?

Mr. MARSHALL. Aye.

The CLERK. Mr. Marshall, aye.

Mr. Norman?

[No response.]

The CLERK. Mr. Cloud?

Mr. CLOUD. Aye.

The CLERK. Mr. Cloud, aye.

Mr. Balderson?

Mr. BALDERSON. Aye.

The CLERK. Mr. Balderson, aye.

Mr. Olson?

Mr. OLSON. Aye.

The CLERK. Mr. Olson, aye.

Mr. Gonzalez?

Mr. GONZALEZ. Aye.

The CLERK. Mr. Gonzalez, aye.

Mr. Waltz?

Mr. WALTZ. Aye.

The CLERK. Mr. Waltz, aye.

Mr. Baird?

Mr. BAIRD. Aye.

The CLERK. Mr. Baird, aye.

Ms. Herrera Beutler?

Ms. HERRERA BEUTLER. Aye.

The CLERK. Ms. Herrera Butler, aye.

Ms. González-Colón?

Ms. GONZÁLEZ-COLÓN. Aye.

The CLERK. Aye—Ms. González-Colón, aye.

Chairwoman JOHNSON. Are there any other Members who haven't voted or would like to change the vote?

The clerk will report.

The CLERK. Madam Chairwoman, the noes are 20 and the ayes are 14.

Chairwoman JOHNSON. The motion—the amendment is not adopted.

A reporting quorum being present, I move that the Committee on Science, Space, and Technology report 23—H.R. 2397, as amended, to the House with the recommendation that the bill will be approved.

Those in favor of the motion will signify by saying aye.

Those opposed, no.

The ayes have it, and the bill is favorably reported.

Without objection, the motion to reconsider is laid on the table, and I ask unanimous consent that the staff be authorized to make any necessary technical and conforming changes to the bill. Without objection, so ordered.

Members will have 2 subsequent calendar days in which to submit supplementary minority or additional views on the measure. Our business is now completed, and the Committee is adjourned. [Whereupon, at 11:51 a.m., the Committee was adjourned.]

