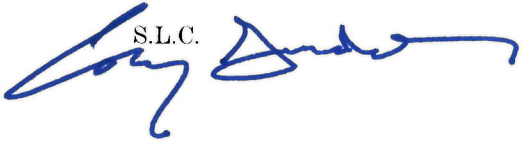


GARDNER SUBSTITUTE

S.L.C. 

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: In the nature of a substitute.

IN THE SENATE OF THE UNITED STATES—116th Cong., 1st Sess.

**S. 1427**

To amend the National Institute of Standards and Technology Act to improve the Network for Manufacturing Innovation Program, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by Mr. GARDNER

Viz:

1 Strike all after the enacting clause and insert the following:  
2

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Global Leadership in  
5 Advanced Manufacturing Act of 2019”.

6 **SEC. 2. IMPROVEMENTS TO NETWORK FOR MANUFACTURING INNOVATION PROGRAM.**  
7

8 (a) ALTERNATE PROGRAM NAME.—Subsection (a) of  
9 section 34 of the National Institute of Standards and  
10 Technology Act (15 U.S.C. 278s) is amended by inserting

1 “or as ‘Manufacturing USA’” after “as the ‘Network for  
2 Manufacturing Innovation Program’”.

3 (b) CENTERS FOR MANUFACTURING INNOVATION.—  
4 Subsection (c) of such section is amended—

5 (1) in subparagraphs (B) and (C)(i) of para-  
6 graph (1), by striking “and tool development for  
7 microelectronics” both places it appears and insert-  
8 ing “tool development for microelectronics, food  
9 manufacturing, superconductors, advanced battery  
10 technologies, robotics, advanced sensors, quantum  
11 information science, supply chain water optimiza-  
12 tion, aeronautics and advanced materials, and  
13 graphene and graphene commercialization”;

14 (2) in paragraph (2)(D), by striking “and mi-  
15 nority” and inserting “, minority, and veteran”; and

16 (3) in paragraph (3)(A), by striking “, but  
17 such” and all that follows through “under subsection  
18 (d)”.

19 (c) FINANCIAL ASSISTANCE TO ESTABLISH AND  
20 SUPPORT CENTERS FOR MANUFACTURING INNOVA-  
21 TION.—Subsection (d) of such section is amended—

22 (1) in paragraph (1) is amended to read as fol-  
23 lows:



1           advancing the current state of the ap-  
2           plicable advanced manufacturing tech-  
3           nology area such as technology readi-  
4           ness level and manufacturing readi-  
5           ness level,” after “measures”; and

6                   (II) by striking the period at the  
7           end and inserting a semicolon; and

8                   (iii) by adding at the end the fol-  
9           lowing:

10                   “(iii) establish standards for the per-  
11           formance of centers for manufacturing in-  
12           novation that are based on the measures  
13           developed under clause (ii); and

14                   “(iv) for each center for manufac-  
15           turing innovation supported by the award,  
16           5 years after the initial award and every 5  
17           years thereafter until Federal funding is  
18           discontinued, conduct an assessment of the  
19           center to confirm whether the performance  
20           of the center is meeting the standards for  
21           performance established under clause  
22           (iii).”;

23                   (B) in subparagraph (D), by inserting “,  
24           including, as appropriate, the Department of  
25           Agriculture, the Department of Defense, the

1 Department of Education, the Department of  
2 Energy, the Department of Labor, the Food  
3 and Drug Administration, the National Aero-  
4 nautics and Space Administration, the National  
5 Institutes of Health, and the National Science  
6 Foundation” after “manufacturing”; and

7 (C) in subparagraph (E)—

8 (i) in clause (ii), by striking “without  
9 the need for long-term Federal funding”;

10 (ii) in clause (iii), by striking “signifi-  
11 cantly”;

12 (iii) in clause (v), by inserting “and to  
13 improve the domestic supply chain” after  
14 “technologies”; and

15 (iv) in clause (ix), by inserting “indus-  
16 trial, research, entrepreneurship, and  
17 other” after “leverage the”;

18 (4) in paragraph (5)—

19 (A) by striking subparagraph (A) and in-  
20 sserting the following:

21 “(A) PERFORMANCE DEFICIENCY.—

22 “(i) NOTICE OF DEFICIENCY.—If the  
23 Secretary finds that a center for manufac-  
24 turing innovation does not meet the stand-  
25 ards for performance established under

1 clause (iii) of paragraph (4)(C) during an  
2 assessment pursuant to clause (iv) of such  
3 paragraph, the Secretary shall notify the  
4 center of any deficiencies in the perform-  
5 ance of the center and provide the center  
6 one year to remedy such deficiencies.

7 “(ii) FAILURE TO REMEDY.—If a cen-  
8 ter for manufacturing innovation fails to  
9 remedy a deficiency identified under clause  
10 (i) or to show significant improvement in  
11 performance one year after notification of  
12 a performance deficiency identified under  
13 clause (i), the Secretary shall notify the  
14 center that the center is ineligible for fur-  
15 ther financial assistance awarded under  
16 paragraph (1) .”;

17 (B) in subparagraph (B), in the first sen-  
18 tence, by striking “large capital facilities or  
19 equipment purchases” and inserting “satellite  
20 centers, large capital facilities, equipment pur-  
21 chases, workforce development, or general oper-  
22 ations”; and

23 (C) by striking subparagraph (C); and  
24 (5) by adding at the end the following:

1           “(6) USE OF FINANCIAL ASSISTANCE.—Finan-  
2           cial assistance awarded under paragraph (1)(B) may  
3           be used to carry out Program-wide activities directed  
4           by the Secretary, such as activities targeting work-  
5           force development.”.

6           (d) FUNDING.—Subsection (c)(2) of such section is  
7           amended—

8           (1) by amending subparagraph (A) to read as  
9           follows:

10                   “(A) NIST INDUSTRIAL TECHNICAL SERV-  
11                   ICES ACCOUNT.—To the extent provided for in  
12                   advance by appropriations Acts, the Secretary  
13                   may use amounts appropriated to the Institute  
14                   for Industrial Technical Services account to  
15                   carry out this section as follows:

16                           “(i) For each of the fiscal years 2015  
17                           through 2019, an amount not to exceed  
18                           \$5,000,000.

19                           “(ii) For each of fiscal years 2020  
20                           through 2030, such amounts as may be  
21                           necessary to carry out this section.”; and

22           (2) in subparagraph (B), by striking “through  
23           2024” and inserting “through 2019”.

24           (e) NATIONAL PROGRAM OFFICE.—Subsection (f) of  
25           such section is amended—

1 (1) in paragraph (2)—

2 (A) in subparagraph (B)—

3 (i) by inserting “coordinate with and,  
4 as appropriate,” before “enter”; and

5 (ii) by inserting “including the De-  
6 partment of Agriculture, the Department  
7 of Defense, the Department of Education,  
8 the Department of Energy, the Depart-  
9 ment of Labor, the Food and Drug Admin-  
10 istration, the National Aeronautics and  
11 Space Administration, the National Insti-  
12 tutes of Health, and the National Science  
13 Foundation,” after “manufacturing.”;

14 (B) in subparagraph (E), by striking “;  
15 and” and inserting a semicolon;

16 (C) by redesignating subparagraph (F) as  
17 subparagraph (J); and

18 (D) by inserting after subparagraph (E)  
19 the following:

20 “(F) to carry out pilot programs in col-  
21 laboration with the centers for manufacturing  
22 innovation such as a laboratory-embedded en-  
23 trepreneurship program;



1           “(G) to provide support services and fund-  
2           ing as necessary to promote workforce develop-  
3           ment activities;

4           “(II) to coordinate with centers for manu-  
5           facturing innovation to develop best practices  
6           for the membership agreements and coordina-  
7           tion of similar project solicitations;

8           “(I) to collaborate with the Department of  
9           Labor, the Department of Education, industry,  
10          career and technical education schools, local  
11          community colleges, universities, and labor or-  
12          ganizations to provide input for the develop-  
13          ment of national certifications for advanced  
14          manufacturing workforce skills in the tech-  
15          nology areas of the centers for manufacturing  
16          innovation; and”;

17          (2) in paragraph (3), by inserting “State, Trib-  
18          al, and local governments,” after “community col-  
19          leges,”; and

20          (3) in paragraph (5)—

21                 (A) by striking “The Secretary” and in-  
22                 serting the following:

23                         “(A) IN GENERAL.—The Secretary”; and

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

25                         “(B) LIAISONS.—

1                   “(i) IN GENERAL.—The Secretary  
2                   may provide financial assistance to a man-  
3                   ufacturing extension center established as  
4                   part of the Hollings Manufacturing Exten-  
5                   sion Partnership to support the purposes  
6                   of the Program by providing services in  
7                   one or more of the following areas:

8                   “(I) Cybersecurity awareness and  
9                   support services for small- and me-  
10                  dium-sized manufacturers.

11                  “(II) Assistance with workforce  
12                  development.

13                  “(III) Technology transfer for  
14                  small and medium-sized manufactur-  
15                  ers.

16                  “(IV) Such other areas as the  
17                  Secretary determines appropriate to  
18                  support the purposes of the Program.

19                  “(ii) SUPPORT.—Support under  
20                  clause (i) may include the designation of a  
21                  liaison.”.

22                  (f) REPORTING AND AUDITING.—Subsection (g) of  
23                  such section is amended—

1 (1) in paragraphs (1) and (2), by striking  
2 “under subsection (d)(1)” and inserting “under sub-  
3 section (d)(1)(A)”;

4 (2) in paragraph (2)(A), by striking “December  
5 31, 2024” and inserting “December 31, 2030”; and

6 (3) in paragraph (3)—

7 (A) in subparagraph (A)—

8 (i) by striking “2 years” and inserting  
9 “3 years”; and

10 (ii) by striking “2-year” and inserting  
11 “3-year”; and

12 (B) in subparagraph (B), by striking “De-  
13 cember 31, 2024” and inserting “December 31,  
14 2030”.

15 (g) EXPANSION.—Subject to the availability of appro-  
16 priations, the Secretary of Commerce shall increase the  
17 number of centers for manufacturing innovation that par-  
18 ticipate in the Network for Manufacturing Innovation Pro-  
19 gram.

20 **SEC. 3. REGIONAL INNOVATION PROGRAM.**

21 Section 27 of the Stevenson-Wydler Technology Inno-  
22 vation Act of 1980 (15 U.S.C. 3722) is amended to read  
23 as follows:

24 **“SEC. 27. REGIONAL INNOVATION PROGRAM.**

25 **“(a) DEFINITIONS.—**In this section:

1           “(1) ELIGIBLE RECIPIENT DEFINED.—The  
2 term ‘eligible recipient’ means—

3           “(A) a State;

4           “(B) an Indian tribe;

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

7           “(D) an entity that is a nonprofit organi-  
8 zation, an institution of higher education, a  
9 public-private partnership, a science or research  
10 park, a Federal laboratory, a venture develop-  
11 ment organization, or an economic development  
12 organization or similar entity that is focused  
13 primarily on improving science, technology, in-  
14 novation, or entrepreneurship; or

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

17           “(2) REGIONAL INNOVATION INITIATIVE.—The  
18 term ‘regional innovation initiative’ means a geo-  
19 graphically-bounded public or nonprofit activity or  
20 program to address issues in the local innovation  
21 systems in order to—

22           “(A) increase the success of innovation-  
23 driven industry;

1           “(B) strengthen the competitiveness of in-  
2           dustry through new product innovation and new  
3           technology adoption;

4           “(C) improve the pace of market readiness  
5           and overall commercialization of innovative re-  
6           search;

7           “(D) enhance the overall innovation capac-  
8           ity and long-term resilience of the region; and

9           “(E) leverage the region’s unique competi-  
10          tive strengths to stimulate innovation and to  
11          create jobs.

12          “(3) STATE.—The term ‘State’ means one of  
13          the several States of the United States, the District  
14          of Columbia, the Commonwealth of Puerto Rico, the  
15          United States Virgin Islands, Guam, American  
16          Samoa, the Commonwealth of the Northern Mariana  
17          Islands, or any other territory or possession of the  
18          United States.

19          “(4) VENTURE DEVELOPMENT ORGANIZA-  
20          TION.—The term ‘venture development organization’  
21          means a State or nonprofit organization that con-  
22          tributes to regional or sector-based economic pros-  
23          perity by providing services for the purposes of—

24                 “(A) accelerating the commercialization of  
25                 research;

1           “(B) strengthening the competitive posi-  
2           tion of industry through the development, com-  
3           mercial adoption, or deployment of technology;  
4           and

5           “(C) providing financial grants, loans, or  
6           direct financial investment to commercialize  
7           technology.

8           “(b) ESTABLISHMENT.—The Secretary shall estab-  
9           lish a regional innovation program to encourage and sup-  
10          port the development of regional innovation strategies de-  
11          signed to increase innovation-driven economic opportunity  
12          within their respective regions.

13          “(c) REGIONAL INNOVATION GRANTS.—

14           “(1) AUTHORIZATION OF GRANTS.—As part of  
15           the program established pursuant to subsection (b),  
16           the Secretary may award grants, on a competitive  
17           basis, to eligible recipients for activities designed to  
18           develop and support a regional innovation initiative.

19           “(2) PERMISSIBLE ACTIVITIES.—A grant  
20           awarded under this subsection shall be used for mul-  
21           tiple activities determined appropriate by the Sec-  
22           retary, including—

23           “(A) improving the connectedness and  
24           strategic orientation of the region through plan-  
25           ning, technical assistance, and communication

1 among participants of a regional innovation ini-  
2 tiative;

3 “(B) attracting additional participants to a  
4 regional innovation initiative;

5 “(C) increasing the availability and invest-  
6 ment of private and philanthropic financing  
7 that supports innovation-based business ven-  
8 tures;

9 “(D) completing the research, development  
10 and introduction of new products, processes,  
11 and services into the commercial market;

12 “(E) increasing the number of full-time  
13 equivalent employment opportunities within in-  
14 novation-based business ventures in the geo-  
15 graphic region; and

16 “(F) achieving quantifiable, positive bene-  
17 fits to, or measurable enhancements for, the  
18 economic performance of the geographic region.

19 “(3) RESTRICTED ACTIVITIES.—Grants award-  
20 ed under this subsection may not be used to pay  
21 for—

22 “(A) costs related to the recruitment, in-  
23 ducement, or associated financial or tangible in-  
24 centives that might be offered to relocate an ex-





1                   “(iii) identify what activities the re-  
2                   gional innovation initiative will undertake;

3                   “(iv) describe the expected outcomes  
4                   of the regional innovation initiative and  
5                   how the eligible recipient will measure  
6                   progress toward those outcomes;

7                   “(v) indicate whether the participants  
8                   in the regional innovation initiative have  
9                   access to, or contribute to, a well-trained  
10                  workforce and other innovation assets that  
11                  are critical to the successful outcomes  
12                  specified in the application;

13                  “(vi) indicate whether the participants  
14                  in the regional innovation initiative are ca-  
15                  pable of attracting additional funds from  
16                  non-Federal sources; and

17                  “(vii) if appropriate for the activities  
18                  proposed in the application, analyze the  
19                  likelihood that the participants in the re-  
20                  gional innovation initiative will be able to  
21                  sustain activities after grant funds received  
22                  under this subsection have been expended.

23                  “(C) FEEDBACK.—The Secretary shall  
24                  provide feedback to program applicants that are

1 not awarded grants to help them improve future  
2 applications.

3 “(D) SPECIAL CONSIDERATIONS.—The  
4 Secretary shall give special consideration to—

5 “(i) applications proposing to include  
6 workforce or training related activities in  
7 their regional innovation initiative from eli-  
8 gible recipients who agree to collaborate  
9 with local workforce investment area  
10 boards; and

11 “(ii) applications from regions that  
12 contain communities negatively impacted  
13 by trade.

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

17 “(6) OUTREACH TO RURAL COMMUNITIES.—

18 “(A) IN GENERAL.—The Secretary shall  
19 conduct outreach to public and private sector  
20 entities in rural communities to encourage those  
21 entities to participate in regional innovation ini-  
22 tiatives under this subsection.

23 “(B) JUSTIFICATION.—As part of the pro-  
24 gram established pursuant to subsection (b),  
25 not less frequently than once each year for the

1 duration of the program as authorized, the Sec-  
2 retary, acting through the Assistant Secretary  
3 of Commerce for Economic Development, shall  
4 submit to Congress an annual report that ex-  
5 plains the balance in the allocation of grants to  
6 eligible recipients under this subsection between  
7 rural and urban areas.

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

11 “(d) REGIONAL INNOVATION RESEARCH AND INFOR-  
12 MATION PROGRAM.—

13 “(1) IN GENERAL.—As part of the program es-  
14 tablished pursuant to subsection (b), the Secretary  
15 shall establish a regional innovation research and in-  
16 formation program—

17 “(A) to gather, analyze, and disseminate  
18 information on best practices for regional inno-  
19 vation initiatives, including information relating  
20 to how innovation, productivity, and economic  
21 development can be maximized through such  
22 strategies;

23 “(B) to provide technical assistance, in-  
24 cluding through the development of technical

1 assistance guides, for the development and im-  
2 plementation of regional innovation initiatives;

3 “(C) to support the development of rel-  
4 evant metrics and measurement standards to  
5 evaluate regional innovation initiatives, includ-  
6 ing the extent to which such strategies stimu-  
7 late innovation, productivity, and economic de-  
8 velopment; and

9 “(D) to collect and make available data on  
10 regional innovation initiatives in the United  
11 States, including data on—

12 “(i) the size, specialization, and com-  
13 petitiveness of regional innovation initia-  
14 tives;

15 “(ii) the regional domestic product  
16 contribution, total jobs and earnings by  
17 key occupations, establishment size, nature  
18 of specialization, patents, Federal research  
19 and development spending, and other rel-  
20 evant information for regional innovation  
21 initiatives; and

22 “(iii) supply chain product and service  
23 flows within and between regional innova-  
24 tion initiatives.

1           “(2) RESEARCH GRANTS.—The Secretary may  
2           award research grants on a competitive basis to sup-  
3           port and further the goals of the program estab-  
4           lished under this section.

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

10           “(4) REGIONAL INNOVATION GRANT PRO-  
11           GRAM.—The Secretary shall incorporate data and  
12           analysis relating to any grant awarded under sub-  
13           section (c) into the program established under this  
14           subsection.

15           “(e) INTERAGENCY COORDINATION.—

16           “(1) IN GENERAL.—To the maximum extent  
17           practicable, the Secretary shall ensure that the ac-  
18           tivities carried out under this section are coordinated  
19           with, and do not duplicate the efforts of, other pro-  
20           grams at the Department of Commerce or at other  
21           Federal agencies.

22           “(2) COLLABORATION.—

23           “(A) IN GENERAL.—The Secretary shall  
24           explore and pursue collaboration with other  
25           Federal agencies, including through multi-agen-

1           cy funding opportunities, on regional innovation  
2           strategies.

3                   “(B) SMALL BUSINESSES.—The Secretary  
4           shall ensure that such collaboration with Fed-  
5           eral agencies prioritizes the needs and chal-  
6           lenges of small businesses.

7           “(f) EVALUATION.—

8                   “(1) IN GENERAL.—Not later than 5 years  
9           after Congress first appropriates funds to carry out  
10          this section, the Secretary shall competitively award  
11          a contract with an independent entity to conduct an  
12          evaluation of programs established under this sec-  
13          tion.

14                   “(2) REQUIREMENTS.—The evaluation con-  
15          ducted under paragraph (1) shall include—

16                           “(A) an assessment of whether the pro-  
17                           gram is achieving its goals;

18                           “(B) the program’s efficacy in providing  
19                           awards to geographically diverse entities;

20                           “(C) any recommendations for how the  
21                           program may be improved; and

22                           “(D) a recommendation as to whether the  
23                           program should be continued or terminated.

24           “(g) REPORTING REQUIREMENT.—Not later than 5  
25          years after the first grant is awarded under subsection (c),

1 and every 5 years thereafter until 5 years after the last  
2 grant recipient completes the regional innovation initiative  
3 for which such grant was awarded, the Secretary shall  
4 submit a report to Congress that describes the outcome  
5 of each regional innovation initiative that was completed  
6 during the previous 5 years.

7 “(h) FUNDING.—From amounts appropriated by  
8 Congress for economic development assistance authorized  
9 under section 27 of the Stevenson-Wydler Technology In-  
10 novation Act of 1980 (15 U.S.C. 3722), the Secretary may  
11 use up to \$50,000,000 in each of the fiscal years 2020  
12 through 2024 to carry out this section.”.