

117TH CONGRESS
1ST SESSION

S. 356

To develop and improve the transportation workforce, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 22, 2021

Ms. CORTEZ MASTO introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To develop and improve the transportation workforce, 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; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Transportation Opportunities for Professional Service
6 Act” or the “TOPS Act”.

7 (b) **TABLE OF CONTENTS.**—The table of contents for
8 this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Task force on developing a 21st century surface transportation work-
force.

Sec. 3. Definitions for transportation training and education programs.

Sec. 4. Transportation education and training program.

Sec. 5. Surface transportation workforce grants.

- Sec. 6. Research and development strategic plan.
 Sec. 7. Transportation workforce scanning tour and national summit.
 Sec. 8. Report on barriers to work in emerging transportation technologies.
 Sec. 9. Centers of Excellence in transportation workforce training.
 Sec. 10. Transportation workforce outreach program.
 Sec. 11. Emerging technologies in the transportation workforce.

1 **SEC. 2. TASK FORCE ON DEVELOPING A 21ST CENTURY**

2 **SURFACE TRANSPORTATION WORKFORCE.**

3 (a) DEFINITIONS.—In this section:

4 (1) APPRENTICESHIP-READINESS PROGRAM.—

5 The term “apprenticeship-readiness program”
 6 means a program or set of strategies that—

7 (A) is designed to prepare individuals to
 8 enter and succeed in a registered apprentice-
 9 ship;

10 (B) is carried out by a local educational
 11 agency (as defined in section 101 of the Ele-
 12 mentary and Secondary Education Act of 1965
 13 (20 U.S.C. 7801)), a State educational agency
 14 (as defined in section 8101 of the Elementary
 15 and Secondary Education Act of 1965 (20
 16 U.S.C. 7801)), a local workforce development
 17 board established under section 107 of the
 18 Workforce Innovation and Opportunity Act (29
 19 U.S.C. 3122), a State workforce development
 20 board, or a labor organization that has a docu-
 21 mented partnership with not less than 1 spon-
 22 sor of a registered apprenticeship;

1 (C) includes a training program—

2 (i) that has a curriculum that is in ac-
3 cordance with industry standards and re-
4 viewed and approved annually by sponsors
5 of the registered apprenticeships within the
6 documented partnership, that will prepare
7 individuals by teaching the skills and com-
8 petencies needed to enter 1 or more reg-
9 istered apprenticeships; and

10 (ii) that provides hands-on training
11 and theoretical education to individuals
12 that—

13 (I) accurately simulate the indus-
14 try and occupational conditions of the
15 registered apprenticeship program de-
16 scribed in subparagraph (B); and

17 (II) is carried out in a manner
18 that—

19 (aa) includes proper obser-
20 vation of supervision and safety
21 protocols; and

22 (bb) does not displace a paid
23 employee; and

1 (D) is encompassed in a formal agreement
2 between a sponsor of a registered apprentice-
3 ship and an individual that—

4 (i) will enable an individual who suc-
5 cessfully completes the apprenticeship-
6 readiness program to enter directly into
7 the registered apprenticeship, if a place in
8 the program is available; and

9 (ii) includes agreements with respect
10 to earning credit recognized by an institu-
11 tion of higher education for skills and com-
12 petencies acquired during the program.

13 (2) DEPARTMENT.—The term “Department”
14 means the Department of Transportation.

15 (3) INSTITUTION OF HIGHER EDUCATION.—The
16 term “institution of higher education” has the
17 meaning given the term in section 101 of the Higher
18 Education Act of 1965 (20 U.S.C. 1001).

19 (4) INTELLIGENT TRANSPORTATION TECH-
20 NOLOGY.—The term “intelligent transportation tech-
21 nology” means an operational system of various
22 technologies that, when combined and managed, im-
23 prove the operating capabilities of the overall trans-
24 portation system.

1 (5) REGISTERED APPRENTICESHIP.—The term
2 “registered apprenticeship” means an apprenticeship
3 program registered under the Act of August 16,
4 1937 (29 U.S.C. 50 et seq.) (commonly known as
5 the “National Apprenticeship Act”), that satisfies
6 the requirements of parts 29 and 30 of title 29,
7 Code of Federal Regulations (as in effect on Janu-
8 ary 1, 2020).

9 (6) SECRETARY.—The term “Secretary” means
10 the Secretary of Transportation.

11 (7) STATE WORKFORCE DEVELOPMENT
12 BOARD.—The term “State workforce development
13 board” means a State workforce development board
14 established under section 101 of the Workforce In-
15 novation and Opportunity Act (29 U.S.C. 3111).

16 (8) TASK FORCE.—The term “Task Force”
17 means the task force established under subsection
18 (b).

19 (9) UNDERREPRESENTED INDIVIDUAL.—The
20 term “underrepresented individual” means—

21 (A) an individual who belongs to a special
22 population (as defined in section 3 of the Carl
23 D. Perkins Career and Technical Education Act
24 of 2006 (20 U.S.C. 2302));

1 (B) an individual with a barrier to employ-
2 ment (as defined in section 3 of the Carl D.
3 Perkins Career and Technical Education Act of
4 2006 (20 U.S.C. 2302)); or

5 (C) an individual otherwise determined by
6 the Secretary to be underrepresented in the
7 transportation workforce.

8 (10) WORK-BASED LEARNING.—The term
9 “work-based learning” has the meaning given the
10 term in section 3 of the Carl D. Perkins Career and
11 Technical Education Act of 2006 (20 U.S.C. 2302).

12 (b) ESTABLISHMENT.—Not later than 90 days after
13 the date of the enactment of this Act, the Secretary shall
14 establish a task force on developing a 21st century surface
15 transportation workforce.

16 (c) DUTIES OF TASK FORCE.—Not later than 1 year
17 after the establishment of the Task Force under sub-
18 section (b), the Task Force shall develop and submit to
19 the Secretary recommendations and strategies for the De-
20 partment, including—

21 (1) an evaluation of the current and future
22 state of the surface transportation workforce, includ-
23 ing projected job needs in the surface transportation
24 sector;

1 (2) an identification of factors influencing indi-
2 viduals pursuing careers in surface transportation,
3 including barriers to attracting individuals into the
4 surface transportation workforce;

5 (3) how to address barriers to retaining individ-
6 uals in surface transportation careers;

7 (4) an identification of, and how to address, po-
8 tential impacts of emerging technologies, including
9 intelligent transportation technologies, on the sur-
10 face transportation workforce;

11 (5) how to increase access for vulnerable or
12 underrepresented individuals, especially women and
13 minorities, to in-demand surface transportation ca-
14 reers;

15 (6) how to facilitate and encourage elementary,
16 secondary, and post-secondary students in the
17 United States to pursue careers in the surface trans-
18 portation sector; and

19 (7) an identification of ways to develop path-
20 ways for students and individuals to secure a posi-
21 tion in an apprenticeship-readiness program, a reg-
22 istered apprenticeship, and other work-based learn-
23 ing opportunities in the surface transportation sector
24 of the United States.

1 (d) CONSIDERATION.—In developing recommenda-
2 tions and strategies pursuant to subsection (c), the Task
3 Force shall—

4 (1) identify factors, including potential stigmas
5 or misperceptions, that influence whether young in-
6 dividuals pursue careers in surface transportation,
7 especially traditionally underrepresented individuals,
8 including women and minorities;

9 (2) consider how to address the potential stig-
10 mas or misperceptions described in paragraph (1)
11 that are affecting the workforce pool of underrep-
12 resented individuals in the surface transportation
13 sector;

14 (3) consider how the Department, businesses,
15 industry, labor, educators, and other stakeholders
16 can coordinate efforts to support qualified individ-
17 uals in pursuing careers in the surface transpor-
18 tation sector;

19 (4) identify methods of enhancing surface
20 transportation apprenticeship-readiness programs
21 and registered apprenticeships, job skills training,
22 mentorships, education, and outreach programs that
23 are exclusive to young individuals in the United
24 States;

1 (5) identify methods to expand the expertise of
2 the surface transportation workforce in skills in var-
3 ious types of intelligent transportation technologies,
4 components, infrastructure, and equipment;

5 (6) identify potential sources of funding, includ-
6 ing grants and scholarships, that may be used to
7 support young and other qualified individuals in pur-
8 suing careers in the surface transportation sector;
9 and

10 (7) ensure geographically diverse perspectives
11 and solutions.

12 (e) CONSULTATION.—In developing recommendations
13 and strategies pursuant to subsection (c), the Task Force
14 shall consult with—

15 (1) local educational agencies and institutions
16 of higher education, including community colleges
17 and vocational schools;

18 (2) State workforce development boards;

19 (3) local registered apprenticeships; and

20 (4) surface transportation sector-related em-
21 ployers and planners.

22 (f) MEMBERSHIP.—

23 (1) IN GENERAL.—The Task Force shall be
24 composed of members, as appointed by the Secretary
25 under paragraph (2), who come from diverse back-

1 grounds and geographical regions and have the re-
2 quired expertise that will allow the members to con-
3 tribute balanced viewpoints that will enable the Task
4 Force to develop the recommendations and strate-
5 gies required under subsection (c).

6 (2) APPOINTMENT.—The Task Force shall be
7 composed of members appointed by the Secretary,
8 including representatives of—

9 (A) industries in the surface transportation
10 sector;

11 (B) labor organizations in the surface
12 transportation sector;

13 (C) institutions of higher education; and

14 (D) other experts and stakeholders in the
15 surface transportation sector that the Secretary
16 determines appropriate, including the consider-
17 ation of geographical diversity and regional per-
18 spectives.

19 (3) TERMS.—Each member shall be appointed
20 for the life of the Task Force.

21 (4) COMPENSATION.—Each member shall serve
22 on the Task Force without compensation.

23 (g) REPORT.—Not later than 60 days after the sub-
24 mission of the recommendations and strategies to the Sec-
25 retary required under subsection (c), and annually there-

1 after until September 30, 2024, the Secretary shall submit
 2 to the Committees on Environment and Public Works,
 3 Commerce, Science, and Transportation, Banking, Hous-
 4 ing, and Urban Affairs, and Appropriations of the Senate
 5 and the Committees on Transportation and Infrastructure
 6 and Appropriations of the House of Representatives a re-
 7 port that includes the recommendations and strategies.

8 (h) TERMINATION.—The Task Force shall terminate
 9 on the date on which the Secretary submits the last report
 10 required under subsection (g).

11 **SEC. 3. DEFINITIONS FOR TRANSPORTATION TRAINING**
 12 **AND EDUCATION PROGRAMS.**

13 (a) TRAINING AND EDUCATION PROGRAMS DEFINI-
 14 TIONS.—Section 504 of title 23, United States Code, is
 15 amended—

16 (1) by redesignating subsections (a) through (h)
 17 as subsections (b) through (i), respectively; and

18 (2) by inserting before subsection (b) (as so re-
 19 designated) the following:

20 “(a) DEFINITIONS.—In this section:

21 “(1) APPRENTICESHIP-READINESS PROGRAM.—

22 The term ‘apprenticeship-readiness program’ means
 23 a program or set of strategies that—

1 “(A) is designed to prepare individuals to
2 enter and succeed in a registered apprentice-
3 ship;

4 “(B) is carried out by a local educational
5 agency, a State educational agency, a local
6 workforce development board, a State workforce
7 development board, or a labor organization that
8 has a documented partnership with not less
9 than 1 sponsor of a registered apprenticeship;

10 “(C) includes a training program—

11 “(i) that has a curriculum that is in
12 accordance with industry standards and re-
13 viewed and approved annually by sponsors
14 of the registered apprenticeships within the
15 documented partnership, that will prepare
16 individuals by teaching the skills and com-
17 petencies needed to enter 1 or more reg-
18 istered apprenticeships; and

19 “(ii) that provides hands-on training
20 and theoretical education to individuals
21 that—

22 “(I) accurately simulate the in-
23 dustry and occupational conditions of
24 the registered apprenticeship program
25 described in subparagraph (B); and

1 “(II) is carried out in a manner
2 that—

3 “(aa) includes proper obser-
4 vation of supervision and safety
5 protocols; and

6 “(bb) does not displace a
7 paid employee; and

8 “(D) is encompassed in a formal agree-
9 ment between a sponsor of a registered appren-
10 ticeship and an individual that—

11 “(i) will enable an individual who suc-
12 cessfully completes the apprenticeship-
13 readiness program to enter directly into
14 the registered apprenticeship, if a place in
15 the program is available; and

16 “(ii) includes agreements with respect
17 to earning credit recognized by an institu-
18 tion of higher education for skills and com-
19 petencies acquired during the program.

20 “(2) CAREER AND TECHNICAL EDUCATION.—
21 The term ‘career and technical education’ has the
22 meaning given the term in section 3 of the Carl D.
23 Perkins Career and Technical Education Act of
24 2006 (20 U.S.C. 2302).

1 “(3) CAREER PATHWAY.—The term ‘career
2 pathway’ has the meaning given the term in section
3 3 of the Workforce Innovation and Opportunity Act
4 (29 U.S.C. 3102).

5 “(4) DUAL OR CONCURRENT ENROLLMENT
6 PROGRAM.—The term ‘dual or concurrent enrollment
7 program’ has the meaning given the term in section
8 8101 of the Elementary and Secondary Education
9 Act of 1965 (20 U.S.C. 7801).

10 “(5) ELIGIBLE AGENCY.—The term ‘eligible
11 agency’ has the meaning given the term in section
12 3 of the Carl D. Perkins Career and Technical Edu-
13 cation Act of 2006 (20 U.S.C. 2302).

14 “(6) INDUSTRY OR SECTOR PARTNERSHIP.—
15 The term ‘industry or sector partnership’ has the
16 meaning given the term in section 3 of the Work-
17 force Innovation and Opportunity Act (29 U.S.C.
18 3102).

19 “(7) INSTITUTION OF HIGHER EDUCATION.—
20 The term ‘institution of higher education’ has the
21 meaning given the term in section 101 of the Higher
22 Education Act of 1965 (20 U.S.C. 1001).

23 “(8) INTELLIGENT TRANSPORTATION TECH-
24 NOLOGY.—The term ‘intelligent transportation tech-
25 nology’ means an operational system of various tech-

1 nologies that, when combined and managed, improve
2 the operating capabilities of the overall transpor-
3 tation system.

4 “(9) LOCAL EDUCATIONAL AGENCY.—The term
5 ‘local educational agency’ has the meaning given the
6 term in section 8101 of the Elementary and Sec-
7 ondary Education Act of 1965 (20 U.S.C. 7801).

8 “(10) LOCAL WORKFORCE DEVELOPMENT
9 BOARD.—The term ‘local workforce development
10 board’ means a local workforce development board
11 established under section 107 of the Workforce In-
12 novation and Opportunity Act (29 U.S.C. 3122).

13 “(11) ON-THE-JOB TRAINING.—The term ‘on-
14 the-job training’ has the meaning given the term in
15 section 3 of the Workforce Innovation and Oppor-
16 tunity Act (29 U.S.C. 3102).

17 “(12) PROGRAM OF STUDY.—The term ‘pro-
18 gram of study’ has the meaning given the term in
19 section 3 of the Carl D. Perkins Career and Tech-
20 nical Education Act of 2006 (20 U.S.C. 2302).

21 “(13) RECOGNIZED POSTSECONDARY CREDEN-
22 TIAL.—The term ‘recognized postsecondary creden-
23 tial’ has the meaning given the term in section 3 of
24 the Workforce Innovation and Opportunity Act (29
25 U.S.C. 3102).

1 “(14) REGISTERED APPRENTICESHIP.—The
2 term ‘registered apprenticeship’ means an appren-
3 ticeship program registered under the Act of August
4 16, 1937 (29 U.S.C. 50 et seq.) (commonly known
5 as the ‘National Apprenticeship Act’), that satisfies
6 the requirements of parts 29 and 30 of title 29,
7 Code of Federal Regulations (as in effect on Janu-
8 ary 1, 2020).

9 “(15) SPECIAL POPULATIONS.—The term ‘spe-
10 cial populations’ has the meaning given the term in
11 section 3 of the Carl D. Perkins Career and Tech-
12 nical Education Act of 2006 (20 U.S.C. 2302).

13 “(16) STATE EDUCATIONAL AGENCY.—The
14 term ‘State educational agency’ has the meaning
15 given the term in section 8101 of the Elementary
16 and Secondary Education Act of 1965 (20 U.S.C.
17 7801).

18 “(17) STATE WORKFORCE DEVELOPMENT
19 BOARD.—The term ‘State workforce development
20 board’ means a State workforce development board
21 established under section 101 of the Workforce In-
22 novation and Opportunity Act (29 U.S.C. 3111).

23 “(18) SURFACE TRANSPORTATION WORKFORCE
24 DEVELOPMENT, TRAINING, AND EDUCATION.—The
25 term ‘surface transportation workforce development,

1 training, and education’ means activities associated
2 with surface transportation career awareness, stu-
3 dent transportation career preparation, and training
4 and professional development for surface transpor-
5 tation workers, including activities for women and
6 minorities and training in various types of intelligent
7 transportation technologies.

8 “(19) TRANSPORTATION SECTOR.—The term
9 ‘transportation sector’ means an industry sector that
10 is involved in construction, manufacturing, mainte-
11 nance, operation, inspection, logistics, design, or en-
12 gineering with respect to transportation equipment,
13 materials, technologies, or infrastructure relating to
14 surface, transit, railway, aviation, and maritime
15 transportation.

16 “(20) UNDERREPRESENTED INDIVIDUAL.—The
17 term ‘underrepresented individual’ means—

18 “(A) an individual who belongs to a special
19 population;

20 “(B) an individual with a barrier to em-
21 ployment (as defined in section 3 of the Carl D.
22 Perkins Career and Technical Education Act of
23 2006 (20 U.S.C. 2302)); or

1 “(C) an individual otherwise determined by
2 the Secretary to be underrepresented in the
3 transportation workforce.

4 “(21) WORK-BASED LEARNING.—The term
5 ‘work-based learning’ has the meaning given the
6 term in section 3 of the Carl D. Perkins Career and
7 Technical Education Act of 2006 (20 U.S.C.
8 2302).”.

9 (b) CONFORMING AMENDMENTS.—

10 (1) TRAINING AND EDUCATION PROGRAMS.—
11 Section 504 of title 23, United States Code, is
12 amended—

13 (A) in subsection (e) (as so redesignated),
14 by striking paragraph (4); and

15 (B) in subsection (f) (as so redesignated),
16 by striking paragraph (3).

17 (2) TRIBAL TECHNICAL ASSISTANCE CEN-
18 TERS.—Section 202(a)(7) of title 23, United States
19 Code, is amended by striking “section 504(b)” and
20 inserting “section 504(c)”.

21 (3) UNIVERSITY TRANSPORTATION CENTER
22 PROGRAMS.—Section 5505(c) of title 49, United
23 States Code, is amended—

1 (A) in paragraph (2)(C)(ii)(I), by striking
2 “section 504(b)” and inserting “section
3 504(c)”;

4 (B) in paragraph (3)(D)(ii)(I), by striking
5 “section 504(b)” and inserting “section
6 504(c)”; and

7 (C) in paragraph (4)(B)(ii)(I), by striking
8 “section 504(b)” and inserting “section
9 504(c)”.

10 **SEC. 4. TRANSPORTATION EDUCATION AND TRAINING PRO-**
11 **GRAM.**

12 Section 504 of title 23, United States Code, is
13 amended by striking subsection (g) (as redesignated by
14 section 3(a)(1)) and inserting the following:

15 “(g) TRANSPORTATION EDUCATION AND TRAINING
16 PROGRAM.—

17 “(1) ESTABLISHMENT.—The Secretary, in con-
18 sultation with the Secretary of Education and the
19 Secretary of Labor, shall establish a program to pro-
20 vide grants to support transportation sector edu-
21 cation and workforce development projects (referred
22 to in this section as the ‘program’).

23 “(2) GRANT AUTHORITY.—In carrying out the
24 program, the Secretary may award a grant on a
25 competitive basis in accordance with this subsection.

1 “(3) ELIGIBLE RECIPIENTS.—

2 “(A) IN GENERAL.—The Secretary may
3 award a grant under the program to any part-
4 nership that includes, at a minimum, the fol-
5 lowing entities:

6 “(i) An institution of higher edu-
7 cation.

8 “(ii) A State department of transpor-
9 tation.

10 “(iii) A metropolitan planning organi-
11 zation.

12 “(iv) Not less than 2 transportation
13 sector employers.

14 “(B) LABOR AND JOINT LABOR-MANAGE-
15 MENT ORGANIZATIONS.—A partnership eligible
16 for a grant under the program may include a
17 labor or joint labor-management organization.

18 “(4) ELIGIBLE PROJECTS.—

19 “(A) IN GENERAL.—Except as provided in
20 subparagraph (B), grant funds awarded under
21 the program may only be used to assist a
22 project that includes not less than 2 of the fol-
23 lowing activities:

1 “(i) Developing, implementing, and
2 assessing innovative programs of study
3 with respect to a transportation sector.

4 “(ii) Training educators to teach sec-
5 ondary or postsecondary career and tech-
6 nical education courses with respect to a
7 transportation sector.

8 “(iii) Increasing career recruitment
9 and outreach to youth, including through
10 career counseling and career exploration
11 opportunities, to encourage participation in
12 transportation sectors.

13 “(iv) Developing on-the-job training
14 and work-based learning opportunities, in-
15 cluding apprenticeship-readiness programs
16 and registered apprenticeships, with re-
17 spect to a transportation sector.

18 “(v) Increasing participation of under-
19 represented individuals, including women,
20 in the transportation workforce.

21 “(vi) Any other activity the Secretary
22 determines appropriate for education or
23 workforce development in a transportation
24 sector.

1 “(B) EXCEPTION.—If a project is in the
2 construction or maintenance sector, grant funds
3 awarded under the program may only be used
4 to develop apprenticeship-readiness programs
5 that prepare individuals for acceptance into reg-
6 istered apprenticeships in that sector.

7 “(5) APPLICATIONS.—

8 “(A) IN GENERAL.—To be eligible for a
9 grant under the program, a partnership re-
10 ferred to in paragraph (3) shall submit to the
11 Secretary an application in such form, at such
12 time, and containing such information as the
13 Secretary determines to be appropriate, which
14 shall include, at a minimum, a description of—

15 “(i) how the partnership will use
16 grant funds to assist an eligible project;

17 “(ii) the roles and responsibilities of
18 each partner in assisting the project;

19 “(iii) any prior experience or dem-
20 onstrated success in workforce development
21 of a partner;

22 “(iv) the current and projected work-
23 force shortages, if any, in the relevant
24 transportation sector and how the project
25 will address those shortages;

1 “(v) any promotion of the increased
2 participation of underrepresented individ-
3 uals, including women, in the transpor-
4 tation workforce that the project will pro-
5 vide;

6 “(vi) any recognized postsecondary
7 credentials that participants in the project
8 will be prepared for;

9 “(vii) any registered apprenticeships,
10 apprenticeship-readiness programs, or
11 other on-the-job training or work-based
12 learning opportunities the project will pro-
13 vide; and

14 “(viii) how the project will develop the
15 skills of individuals in various types of in-
16 telligent transportation technologies and
17 components, infrastructure, and equipment
18 related to those technologies.

19 “(B) PRIORITY.—In selecting partnerships
20 referred to in paragraph (3) to receive a grant
21 under the program, the Secretary shall give pri-
22 ority to a partnership that includes a labor or
23 joint labor-management organization.

24 “(6) CONSIDERATIONS.—In making a grant
25 under the program, the Secretary shall consider—

1 “(A) geographical diversity;

2 “(B) the degree to which an eligible project
3 may address current or projected transportation
4 workforce shortages;

5 “(C) how the project will increase the skills
6 of individuals in various types of intelligent
7 transportation technologies, and components,
8 infrastructure, and equipment related to those
9 technologies; and

10 “(D) if applicable, the quality of any pro-
11 posed on-the-job training or work-based learn-
12 ing opportunities to be provided.

13 “(7) LIMITATIONS.—

14 “(A) MAXIMUM.—The amount of a grant
15 under this subsection may not exceed \$300,000.

16 “(B) FEDERAL SHARE.—

17 “(i) IN GENERAL.—Except as pro-
18 vided in clause (ii), the Federal share of
19 the cost of a project carried out with a
20 grant under the program shall be 95 per-
21 cent.

22 “(ii) MULTIPLE GRANTS.—After a re-
23 cipient has received 2 grants under the
24 program, the Federal share of the cost of
25 a project carried out with a subsequent

1 grant under the program shall be not more
2 than 75 percent.

3 “(8) REPORT.—A recipient of a grant under
4 the program shall submit to the Secretary, at such
5 time as the Secretary determines appropriate, a re-
6 port that includes a description of—

7 “(A) how the grant funds were used;

8 “(B) the education and employment out-
9 comes for individuals participating in or bene-
10 fitting from the project assisted with grant
11 funds under the program (referred to in this
12 subparagraph as the ‘participants’),
13 disaggregated by special populations, which
14 shall include at a minimum—

15 “(i) the percentage, and median earn-
16 ings, of participants who are in unsub-
17 sidized employment by the date that is 90
18 days after exit from the project;

19 “(ii) the percentage of participants
20 who are in unsubsidized employment by
21 the date that is 180 days after exit from
22 the project;

23 “(iii) the percentage of participants
24 who obtain a recognized postsecondary cre-
25 dential, or a secondary school diploma or

1 recognized equivalent during the project or
2 not later than 1 year after exit from the
3 project; and

4 “(iv) the percentage of participants
5 who, during the project—

6 “(I) enrolled in an education or
7 training program that leads to a rec-
8 ognized postsecondary credential or
9 employment; and

10 “(II) developed skills necessary
11 to receive such a credential or employ-
12 ment through such program, including
13 those skills in various types of intel-
14 ligent transportation technologies and
15 components, infrastructure, and
16 equipment related to those tech-
17 nologies; and

18 “(C) the outreach efforts made to expand
19 the awareness, engagement, and performance of
20 the project for the students and workers in the
21 geographical region.”.

22 **SEC. 5. SURFACE TRANSPORTATION WORKFORCE GRANTS.**

23 Section 504(f)(1) of title 23, United States Code (as
24 redesignated by section 3(a)(1)), is amended—

1 (1) in subparagraph (B), by inserting “, includ-
2 ing development of the skills necessary to utilize
3 emerging technologies, such as intelligent transpor-
4 tation technologies” after “development”;

5 (2) in subparagraph (F), by striking “and” at
6 the end;

7 (3) in subparagraph (G), by striking the period
8 at the end and inserting a semicolon; and

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

10 “(H) on-the-job training or work-based
11 learning opportunities, including apprentice-
12 ship-readiness programs and registered appren-
13 ticeships;

14 “(I) activities to support the establishment
15 of industry or sector partnerships;

16 “(J) activities to increase the number of
17 underrepresented individuals in the surface
18 transportation workforce;

19 “(K) activities to update facilities and
20 equipment used in career and technical edu-
21 cation programs of study; and

22 “(L) training that increases the skills of
23 individuals in various types of intelligent trans-
24 portation technologies and components, infra-

1 structure, and equipment related to those tech-
2 nologies.”.

3 **SEC. 6. RESEARCH AND DEVELOPMENT STRATEGIC PLAN.**

4 Section 6503 of title 49, United States Code, is
5 amended—

6 (1) in subsection (c)(1)—

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

9 (B) in subparagraph (F), by striking the
10 semicolon at the end and inserting “; and”; and

11 (C) by adding at the end the following:

12 “(G) developing and maintaining a diverse
13 workforce in transportation sectors;” and

14 (2) by adding at the end the following:

15 “(f) DEFINITIONS.—In this section:

16 “(1) INTELLIGENT TRANSPORTATION TECH-
17 NOLOGY.—The term ‘intelligent transportation tech-
18 nology’ means an operational system of various tech-
19 nologies that, when combined and managed, improve
20 the operating capabilities of the overall transpor-
21 tation system.

22 “(2) TRANSPORTATION SECTOR.—The term
23 ‘transportation sector’ means an industry sector that
24 is involved in construction, manufacturing, mainte-
25 nance, operation, inspection, logistics, design, or en-

1 gineering with respect to transportation equipment,
2 materials, technologies, including intelligent trans-
3 portation technologies, or infrastructure relating to
4 surface, transit, railway, aviation, and maritime
5 transportation.”.

6 **SEC. 7. TRANSPORTATION WORKFORCE SCANNING TOUR**
7 **AND NATIONAL SUMMIT.**

8 (a) **WORKFORCE DEVELOPMENT SCANNING TOUR.**—
9 Not later than 180 days after the date of enactment of
10 this Act, the Secretary of Transportation, in coordination
11 with the Task Force established under section 2 and the
12 Intelligent Transportation Systems Joint Program Office
13 of the Department of Transportation, shall conduct a na-
14 tional and international scanning tour of surface transpor-
15 tation agencies, including State and local departments of
16 transportation, public transit agencies, rail agencies, and
17 other similar entities, to identify critical future investment
18 in workforce development, particularly investments related
19 to enhancing the technology skills of the personnel that
20 operate and maintain surface transportation systems, in-
21 frastructure, and vehicles.

22 (b) **NATIONAL SUMMIT ON TRANSPORTATION WORK-**
23 **FORCE DEVELOPMENT.**—The Secretary of Transpor-
24 tation, in coordination with the Task Force established

1 under section 2, shall jointly host a National Summit on
2 Transportation Workforce Development—

3 (1) to engage public and private stakeholders;

4 and

5 (2) to develop training and initiatives based on
6 previous findings by the Intelligent Transportation
7 Systems Joint Program Office of the Department of
8 Transportation and the scanning tour under sub-
9 section (a).

10 **SEC. 8. REPORT ON BARRIERS TO WORK IN EMERGING**
11 **TRANSPORTATION TECHNOLOGIES.**

12 The Comptroller General of the United States shall
13 conduct, and submit to Congress a report on the results
14 of, a study that identifies issues relating to workforce de-
15 velopment in intelligent transportation technologies and
16 zero-emissions transportation technologies, including—

17 (1) any shortages of skilled employees in the
18 fields of intelligent transportation technologies and
19 zero-emissions transportation technologies;

20 (2) issues relating to the transition of workers
21 from traditional vehicle manufacturing, operation,
22 and maintenance to the intelligent and zero-emis-
23 sions transportation workforce;

24 (3) issues relating to the transition of workers
25 from traditional surface transportation installation,

1 construction, manufacturing, operation, and mainte-
 2 nance to incorporation into the intelligent transpor-
 3 tation workforce; and

4 (4) examples of successful models of workforce
 5 development in the fields of intelligent transpor-
 6 tation technologies and zero-emissions transportation
 7 technologies.

8 **SEC. 9. CENTERS OF EXCELLENCE IN TRANSPORTATION**
 9 **WORKFORCE TRAINING.**

10 Section 504 of title 23, United States Code, is
 11 amended by adding after subsection (i) (as redesignated
 12 by section 3(a)(1)) the following:

13 “(j) **CENTERS OF EXCELLENCE IN TRANSPORTATION**
 14 **WORKFORCE TRAINING.—**

15 “(1) **DESIGNATION.—**Not later than 1 year
 16 after the date of the enactment of this subsection,
 17 the Secretary, in consultation with the Secretary of
 18 Education and the Secretary of Labor, shall des-
 19 ignate certain geographically diverse consortia of 2-
 20 year institutions of higher education as Community
 21 and Technical College Centers of Excellence in
 22 Transportation Workforce Training (referred to in
 23 this section as a ‘Center of Excellence’) in accord-
 24 ance with paragraph (2).

25 “(2) **CRITERIA FOR DESIGNATION.—**

1 “(A) IN GENERAL.—The Secretary shall
2 designate as a Center of Excellence under para-
3 graph (1) a consortium the Secretary deter-
4 mines has a demonstrated ability—

5 “(i) to address education and training
6 related to careers in transportation and
7 manufacturing sectors; and

8 “(ii) to carry out certain activities, in-
9 cluding—

10 “(I) developing and implementing
11 career pathways and programs of
12 study that lead to recognized postsec-
13 ondary credentials in transportation
14 sectors;

15 “(II) providing on-the-job train-
16 ing or work-based learning opportuni-
17 ties in transportation sectors;

18 “(III) developing dual or concur-
19 rent enrollment programs to provide
20 education and training opportunities
21 to secondary school students;

22 “(IV) providing education and
23 training for the development of a
24 workforce skilled in various types of
25 emerging technologies in transpor-

1 tation sectors, including intelligent
2 transportation technologies and com-
3 ponents, infrastructure, and equip-
4 ment related to those technologies;

5 “(V) partnering with employers,
6 labor organizations, local workforce
7 development boards, State workforce
8 development boards, State educational
9 agencies, and eligible agencies to ad-
10 dress education and training related
11 to careers in transportation sectors;

12 “(VI) providing greater opportu-
13 nities to underrepresented individuals
14 in the various careers within the
15 transportation sector; and

16 “(VII) providing outreach and
17 career counseling to increase partici-
18 pation in transportation sectors.

19 “(B) GEOGRAPHICAL DIVERSITY.—To the
20 extent practicable, in designating Centers of
21 Excellence under paragraph (1), the Secretary
22 shall select institutions of higher education that
23 are geographically diverse.

24 “(3) COLLABORATION.—To address education
25 and training related to careers in transportation sec-

1 tors, a Center of Excellence may seek to collaborate
2 with an institution receiving a grants under section
3 5505 of title 49.

4 “(4) GRANTS TO CENTERS OF EXCELLENCE.—

5 “(A) IN GENERAL.—The Secretary shall
6 establish a program (in this subsection referred
7 to as the ‘Program’) to award grants on a com-
8 petitive basis, as determined by the Secretary,
9 to Centers of Excellence to address education
10 and training related to careers in transportation
11 sectors.

12 “(B) ELIGIBLE PROJECTS.—Grant funds
13 awarded under the Program may only be used
14 for a project that facilitates an activity de-
15 scribed in paragraph (2).

16 “(C) APPLICATIONS.—To be eligible for a
17 grant under the Program, a Center of Excel-
18 lence shall submit to the Secretary an applica-
19 tion in such form, at such time, and containing
20 such information as the Secretary determines
21 appropriate.

22 “(D) REQUIREMENT.—For each fiscal
23 year, not less than 10 percent of the total
24 amounts made available for the Program shall
25 be used for grants for training in emerging

1 technologies, including intelligent transportation
2 technologies.

3 “(E) LIMITATIONS.—

4 “(i) MAXIMUM AMOUNT.—The
5 amount of a grant under the Program may
6 not exceed \$2,000,000.

7 “(ii) FEDERAL SHARE.—The Federal
8 share of the cost of a project carried out
9 by a grant under the Program—

10 “(I) shall be 100 percent for a
11 project carried out in fiscal year 2022
12 or 2023; and

13 “(II) may not exceed 75 percent
14 for a project carried out in any of fis-
15 cal years 2024 through 2026.

16 “(F) REPORT.—Each recipient of a grant
17 under the Program shall submit to the Sec-
18 retary a report in such form, at such time, and
19 containing such information as the Secretary
20 determines appropriate to evaluate the grant,
21 including—

22 “(i) information relating to the use of
23 grant funds awarded to the recipient under
24 the Program; and

1 “(ii) an evaluation of each project car-
2 ried out with the grant funds, including—

3 “(I) the percentage, and median
4 earnings, of individuals participating
5 in or benefitting from the project (re-
6 ferred to in this clause as the ‘partici-
7 pants’) who are in unsubsidized em-
8 ployment by the date that is 90 days
9 after exit from the project;

10 “(II) the percentage of partici-
11 pants who are in unsubsidized employ-
12 ment by the date that is 180 days
13 after exit from the project;

14 “(III) the percentage of partici-
15 pants who obtain a recognized post-
16 secondary credential, or a secondary
17 school diploma or recognized equiva-
18 lent, during the project or not later
19 than 1 year after exit from the
20 project;

21 “(IV) the percentage of partici-
22 pants who, during the project—

23 “(aa) enrolled in an edu-
24 cation or training program that
25 leads to a recognized postsec-

1 ondary credential or employment;

2 or

3 “(bb) developed skills nec-
4 essary to receive such credential
5 or employment; and

6 “(V) the percentage of underrep-
7 resented individuals in various careers
8 within the transportation sector that
9 developed skills in various types of in-
10 telligent transportation technologies
11 and components, infrastructure, and
12 equipment related to those tech-
13 nologies.

14 “(G) AUTHORIZATION OF APPROPRIA-
15 TIONS.—There is authorized to be appropriated
16 to carry out this subsection \$15,000,000 for
17 each of fiscal years 2022 through 2026.”.

18 **SEC. 10. TRANSPORTATION WORKFORCE OUTREACH PRO-**
19 **GRAM.**

20 (a) IN GENERAL.—Subchapter I of chapter 55 of
21 subtitle III of title 49, United States Code, is amended
22 by adding at the end the following:

23 **“§ 5506. Transportation workforce outreach program**

24 “(a) IN GENERAL.—The Secretary of Transportation
25 (referred to in this section as the ‘Secretary’) shall estab-

1 lish and administer a transportation workforce outreach
2 program, under which the Secretary shall carry out a se-
3 ries of public service announcement campaigns during
4 each of fiscal years 2022 through 2026.

5 “(b) PURPOSES.—The purpose of the campaigns car-
6 ried out under the program under this section shall be—

7 “(1) to increase awareness of career opportuni-
8 ties in the transportation sector, including aviation
9 pilots, safety inspectors, mechanics and technicians,
10 maritime transportation workers, air traffic control-
11 lers, flight attendants, truck drivers, engineers, tran-
12 sit workers, railroad workers, and other transpor-
13 tation professionals;

14 “(2) to reduce any stigma or misinformation re-
15 lated to careers in the transportation sector;

16 “(3) to identify and emphasize the existing and
17 future needs of emerging technologies within the
18 transportation sector; and

19 “(4) to increase diversity, including with respect
20 to race, gender, ethnicity, and socioeconomic status,
21 of professionals in the transportation sector.

22 “(c) ADVERTISING.—The Secretary may use, or au-
23 thorize the use of, amounts made available to carry out
24 the program under this section for the development, pro-
25 duction, and use of broadcast, digital, and print media ad-

1 vertising and outreach in carrying out a campaign under
2 this section.

3 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
4 is authorized to be appropriated to the Secretary to carry
5 out this section \$5,000,000 for each of fiscal years 2022
6 through 2026.”.

7 (b) CLERICAL AMENDMENT.—The table of sections
8 for subchapter I of chapter 55 of subtitle III of title 49,
9 United States Code, is amended by inserting after the
10 item relating to section 5505 the following:

“5506. Transportation workforce outreach program.”.

11 **SEC. 11. EMERGING TECHNOLOGIES IN THE TRANSPOR-**
12 **TATION WORKFORCE.**

13 (a) DEFINITIONS.—In this section:

14 (1) DEPARTMENT.—The term “Department”
15 means the Department of Transportation.

16 (2) SECRETARY.—The term “Secretary” means
17 the Secretary of Transportation.

18 (b) EMERGING TECHNOLOGIES RECOMMENDATION
19 EFFORTS.—To the maximum extent practicable, the Sec-
20 retary shall implement certain recommendations of the
21 Comptroller General of the United States identified in the
22 report entitled “Automated Technologies: DOT Should
23 Take Steps to Ensure Its Workforce Has Skills Needed
24 to Oversee Safety” and dated December 2020, including
25 by—

1 (1) carrying out efforts to identify all cyberse-
2 curity occupations across the Department, and in-
3 corporating the occupations relating to overseeing
4 the cybersecurity of automated technologies into the
5 workforce planning efforts of the Department;

6 (2) assessing skill gaps in key occupations that
7 are involved in overseeing the safety of automated
8 technologies and implementing strategies to close
9 those gaps;

10 (3) not less frequently than annually, meas-
11 uring the progress of strategies implemented to close
12 the skill gaps described in paragraph (2) and ensur-
13 ing other modal administrations of the Department
14 offer training to close those gaps;

15 (4) collecting and analyzing information on the
16 effectiveness of recruiting strategies, including spe-
17 cial payment authorities, in attracting employees of
18 the Department to occupations that oversee the safe-
19 ty of automated technologies; and

20 (5) sharing the effective recruiting strategies
21 described in paragraph (4) with other modal admin-
22 istrations of the Department.

23 (c) EMERGING TECHNOLOGIES COORDINATION EF-
24 FORT.—The Office of Research, Development, and Tech-
25 nology of the Department and the Intelligent Transpor-

1 tation Systems Joint Program Office of the Department
2 shall coordinate—

3 (1) to establish a curriculum and leverage exist-
4 ing Department workforce programs to ensure the
5 recruitment and training of cybersecurity and pri-
6 vacy technical experts to assist any modal adminis-
7 tration of the Department in overseeing the effec-
8 tiveness and safety of emerging technologies; and

9 (2) to use the efforts carried out by the Sec-
10 retary under subsection (b) to provide a growing
11 workforce for transportation providers in the United
12 States that is adept in the curriculum and workforce
13 programs described in paragraph (1).

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