

# SENATE, No. 659

## STATE OF NEW JERSEY 220th LEGISLATURE

PRE-FILED FOR INTRODUCTION IN THE 2022 SESSION

**Sponsored by:**

**Senator STEVEN V. OROHO**

**District 24 (Morris, Sussex and Warren)**

**Senator LINDA R. GREENSTEIN**

**District 14 (Mercer and Middlesex)**

**Co-Sponsored by:**

**Senators Corrado, Singleton, Testa, Cunningham, Gopal, A.M.Bucco and  
Zwicker**

**SYNOPSIS**

“Manufacturing in Higher Education Act”; requires various State entities to promote manufacturing career pathways for students and provides assistance to manufacturing industry.

**CURRENT VERSION OF TEXT**

Introduced Pending Technical Review by Legislative Counsel.



**(Sponsorship Updated As Of: 6/6/2022)**

1 AN ACT concerning the promotion of the manufacturing industry in  
2 higher education and supplementing Title 18A of the New Jersey  
3 Statutes, Title 34 of the Revised Statutes, and Title 52 of the  
4 Revised Statutes.

5

6 **BE IT ENACTED** *by the Senate and General Assembly of the State*  
7 *of New Jersey:*

8

9 1. This act shall be known and may be cited as the  
10 “Manufacturing in Higher Education Act.”

11

12 2. a. The Secretary of Higher Education, in consultation with  
13 the Commissioner of Education, the Commissioner of Labor and  
14 Workforce Development, the New Jersey Council of County  
15 Colleges, the New Jersey Council of County Vocational Schools,  
16 and representatives of the business community, shall design a  
17 manufacturing career pathway to be offered through the county  
18 colleges and county vocational school districts to provide students  
19 interested in pursuing a career in manufacturing with the instruction  
20 and skills necessary to gain employment in the manufacturing or  
21 advanced manufacturing sectors.

22 b. The manufacturing career pathway required pursuant to  
23 subsection a. of this section shall include traditional and advanced  
24 manufacturing processes and methods of production including, but  
25 not limited to, the machinery, technology, tools, and equipment  
26 used in a wide range of manufacturing industries.

27

28 3. a. The Secretary of Higher Education, in consultation with  
29 the Commissioner of Labor and Workforce Development and the  
30 New Jersey Economic Development Authority, shall establish the  
31 New Jersey STEM Entrepreneur Fellowship Program in county  
32 colleges and four-year institutions of higher education.

33 b. The secretary shall work in consultation with the New Jersey  
34 Economic Development Authority and the Commissioner of Labor  
35 and Workforce Development to fund no less than 20 fellowships,  
36 administered by the secretary, which focus on supporting  
37 entrepreneurs in the Science, Technology, Engineering and  
38 Mathematics (STEM) fields. The fellowships may be provided to  
39 individuals who have proven to the secretary that they have an idea  
40 to create, advance or develop a product in the STEM field which  
41 will have a beneficial impact on society and will result in a self-  
42 sustaining business in the future.

43 The fellowships shall be issued for three years each and shall be  
44 used primarily to support the entrepreneurs in commercializing the  
45 idea and developing a well-structured business.

46 Priority will be given to fellowships which are submitted with  
47 the support of an incubator supported by the State of New Jersey or  
48 any of its public entities.

1 c. The secretary, in consultation with the New Jersey  
2 Economic Development Authority, shall conduct an evaluation of  
3 the effectiveness of the New Jersey STEM Entrepreneur Fellowship  
4 Program to establish new businesses no later than five years after  
5 the approval of the first fellowship.  
6

7 4. a. The Secretary of Higher Education shall establish a  
8 “Higher Education Manufacturing Grant Program.” The program  
9 shall be administered by a three-person commission which shall  
10 include: the Secretary of Higher Education, or a designee, who shall  
11 serve as chair of the commission; a representative of the New Jersey  
12 Manufacturing Extension Program; and a representative of the New  
13 Jersey Community College Consortium for Workforce and  
14 Economic Development. The commission shall annually award \$10  
15 million to New Jersey institutions of higher education, proprietary  
16 institutions, and county vocational school districts for the purpose  
17 of establishing or expanding programs in the manufacturing fields.  
18 The grants shall be allocated on a competitive basis and shall be  
19 distributed as follows:

20 (1) 50 percent of program funding shall be awarded to county  
21 colleges;

22 (2) 25 percent of program funding shall be awarded to four-year  
23 institutions of higher education and proprietary institutions; and

24 (3) 25 percent of program funding shall be awarded to county  
25 vocational school districts.

26 b. A grant recipient shall use the funds to establish or expand  
27 programs and curricula in the fields of manufacturing,  
28 manufacturing engineering, or advanced manufacturing.

29 c. To be eligible for consideration of a grant award, an  
30 institution of higher education, proprietary institution, or county  
31 vocational school district shall submit an application to the  
32 commission, in accordance with application procedures and  
33 requirements prescribed by the secretary. A grant application shall  
34 include a complete description of the applicant’s specific plans and  
35 objectives for the use of the grant funds and any other information  
36 specified by the secretary.

37 d. The commission, in accordance with any rules prescribed by  
38 the secretary, shall establish selection criteria for the awarding of  
39 grant funds under the program, and shall award grants through a  
40 competitive process based upon review of the applications and  
41 subject to the availability of funds. The commission shall establish  
42 the amount for each grant that is approved.

43 e. As used in this section, “proprietary institution” shall be  
44 limited to proprietary institutions that have received accreditation  
45 from an accrediting body recognized by the United States  
46 Department of Education.

1       5. a. There is created within the Office of the Secretary of  
2 Higher Education a fund to be known as the “Higher Education  
3 Manufacturing Grant Fund.” The fund shall be used to provide  
4 grants to New Jersey institutions of higher education, proprietary  
5 institutions, and county vocational school districts under the  
6 “Higher Education Manufacturing Grant Program” established  
7 pursuant to section 4 of P.L.     , c. (C.     ) (pending before the  
8 Legislature as this bill).

9       b. The fund shall be annually credited with money appropriated  
10 by the State, any moneys received by the State from corporate  
11 donors or other private sector support, and any federal funds which  
12 may become available for higher education and manufacturing-  
13 related purposes.

14  
15       6. The Secretary of Higher Education shall adopt rules and  
16 regulations pursuant to the “Administrative Procedure Act,”  
17 P.L.1968, c.410 (C.52:14B-1 et seq.), necessary to effectuate the  
18 purposes of section 2 through section 5 of P.L.     , c. (C.     )  
19 (pending before the Legislature as this bill).

20  
21       7. a. The Commissioner of Education, in consultation with the  
22 Secretary of Higher Education, the Business Action Center in the  
23 Department of State, the New Jersey Manufacturing Extension  
24 Program, and representatives of business and industry, shall  
25 establish and maintain a State-recognized list of industry-  
26 recognized credentials in the advanced manufacturing field to assist  
27 county vocational school districts, institutions of higher education,  
28 and the workforce development system in developing appropriate  
29 educational programs to enable students to more adequately meet  
30 the advanced technical training needs in this field.

31       b. The Commissioner of Education, in consultation with the  
32 Secretary of Higher Education, the Business Action Center in the  
33 Department of State, the New Jersey Manufacturing Extension  
34 Program, and representatives of business and industry, shall identify  
35 courses of study for careers in emerging manufacturing industries,  
36 including careers in industrial marketing, mechanical engineering,  
37 computer science, electronics, and mechatronics.

38  
39       8. The Secretary of State, in consultation with the  
40 Commissioner of Labor and Workforce Development, shall  
41 designate an employee of the Department of State to act as a liaison  
42 between the State and manufacturing businesses located in this  
43 State. The duties of the liaison shall be to assist manufacturing  
44 businesses by:

45       a. advertising manufacturing businesses’ products or services  
46 nationally and internationally through the Business Action Center in  
47 the Department of State; and

1       b. establishing a business referral service where manufacturing  
2 businesses may be referred to other State, federal, or private  
3 business resource organizations, such as the New Jersey  
4 Manufacturing Extension Program, the State's Small Business  
5 Development Centers, and other business organizations that provide  
6 specialized business development assistance, technology  
7 information, consulting management, and customized one-to-one  
8 counseling concerning business plans and technical assistance with  
9 significant business topics and issues.

10  
11       9. a. The Secretary of State, in consultation with the  
12 Commissioner of Labor and Workforce Development, the New  
13 Jersey Economic Development Authority, and other State  
14 departments, agencies, boards, commissions, and authorities, shall  
15 direct resources, create incentives, and provide technological,  
16 financial, and workforce development opportunities for  
17 manufacturing businesses.

18       b. The Secretary of State may call upon any department,  
19 authority, commission, board, office, division, or agency of the  
20 State to provide any information, resources, or other assistance  
21 deemed necessary to carry out the provisions of P.L. , c. (C. )  
22 (pending before the Legislature as this bill). This may include, but  
23 not be limited to: the New Jersey Economic Development Authority  
24 for assistance with manufacturing business funding assistance  
25 programs; the Department of Labor and Workforce Development  
26 for assistance with developing workforce development strategies for  
27 manufacturing businesses; the Department of Transportation and  
28 the New Jersey Transit Corporation for assistance with enhancing  
29 public transportation operations for employees of manufacturing  
30 businesses; the Business Action Center in the Department of State  
31 for assistance with manufacturing business attraction, retention, and  
32 expansion efforts and advising on smart growth development  
33 strategies; and the Department of Community Affairs for assistance  
34 to manufacturing businesses participating in the urban enterprise  
35 zone program established by P.L.1983, c.303 (C.52:27H-60 et al.).

36  
37       10. a. The New Jersey Economic Development Authority, in  
38 consultation with the Business Action Center created in the  
39 Department of State and an institution of higher education, may  
40 designate an institution of higher education or other entity as a  
41 manufacturing and production business resource center to provide  
42 services and assistance to manufacturing businesses to assist them  
43 to modernize, maximize their efficiency, and expand their  
44 production through the development and commercialization of  
45 innovative products.

46       b. The authority shall grant this designation to any institution  
47 of higher education or other entity that meets qualifications  
48 established by the authority. The authority shall base the

1 qualifications upon the ability of the institution or entity to provide  
2 specialized services and information to manufacturing and  
3 production facilities, which may include specialization in discrete  
4 aspects of the manufacturing and production process, or to provide  
5 more comprehensive services.

6 c. The authority shall refer a manufacturing business deemed  
7 eligible by the authority to a manufacturing and production business  
8 resource center or other organization qualified to provide services  
9 to small and mid-sized manufacturing businesses, which services  
10 shall include, but not be limited to:

11 (1) assistance with product development, including:

12 (a) a preliminary technical evaluation of a product and any  
13 design and materials issues,

14 (b) assistance in providing a connection with available research  
15 and development resources, prototype development resources, and  
16 product evaluation and testing resources, and

17 (c) the selection, implementation and optimization of available  
18 technologies;

19 (2) assistance in production planning and inventory control;

20 (3) assistance in identifying appropriate factory and office  
21 automation and modernizing production capacity;

22 (4) assistance in identifying sources of supply, including any  
23 Internet-based listing of New Jersey-based suppliers of goods and  
24 services;

25 (5) assistance in establishing a quality assurance program;

26 (6) assistance with market analysis and development, including  
27 assistance in identifying export opportunities, provided by the  
28 Business Action Center;

29 (7) assistance with distribution issues;

30 (8) assistance in developing the skills of the existing workforce  
31 or procuring skilled workers;

32 (9) referral to financing resources; and

33 (10) assistance in preliminary patent and trademark searches.  
34

35 11. a. There is created in the New Jersey State Employment  
36 and Training Commission, established pursuant to section 5 of  
37 P.L.1989, c.293 (C.34:15C-2), the New Jersey Advanced  
38 Manufacturing Council.

39 b. The council shall consist of 11 members who are individuals  
40 with experience in the fields of labor, education, or workforce  
41 development or training. The 11 members shall be appointed by the  
42 Governor as follows: two members shall be recommended by the  
43 Senate President; two members shall be recommended by the  
44 Speaker of the General Assembly; one member shall be  
45 recommended by the Minority Leader of the Senate; one member  
46 shall be recommended by the Minority Leader of the General  
47 Assembly; and, five members shall be recommended by the  
48 Governor. The members shall be appointed for five-year terms,

1 except, of the members first appointed, four members shall be  
2 appointed for five-year terms, four member shall be appointed for  
3 three-year terms, and three members shall be appointed for four-  
4 year terms. Each member shall hold office for the term of  
5 appointment and until a successor is appointed and qualified. A  
6 member appointed to fill a vacancy occurring in the membership of  
7 the council for any reason other than the expiration of the term shall  
8 have a term of appointment for the unexpired term only. Vacancies  
9 shall be filled in the same manner as the original appointment. A  
10 member may be appointed for any number of successive terms. Any  
11 member appointed may be removed from the council by the  
12 appointing authority, as the case may be, for cause, after a hearing  
13 and may be suspended by the appointing authority pending the  
14 completion of the hearing.

15 c. Members of the council shall serve without compensation,  
16 but may be reimbursed for necessary expenses incurred in the  
17 performance of their duties as members. Action may be taken and  
18 motions and resolutions may be adopted by the council at a council  
19 meeting by an affirmative vote of a majority of the members. The  
20 council shall elect from its members a chairperson. Advanced  
21 notification for, and copies of the minutes of, each meeting of the  
22 council shall be filed with the Governor, the President of the  
23 Senate, and the Speaker of the General Assembly.

24

25 12. The council shall:

26 a. convene and enable industry-led, private-public partnerships  
27 focused on engaging New Jersey institutions of higher education in  
28 manufacturing innovation;

29 b. design and implement an advanced manufacturing initiative  
30 to facilitate collaboration and information sharing across State  
31 departments and agencies;

32 c. assist private companies to enhance technological transfer in  
33 New Jersey manufacturing industries to help companies overcome  
34 technical obstacles to scaling up production of new technologies;  
35 and

36 d. submit an annual report to the Governor, to the Legislature  
37 pursuant to section 2 of P.L.1991, c.164 (C.52:14-19.1), and to the  
38 State Employment and Training Commission, of its assessments and  
39 recommendations to enhance State policy related to the advanced  
40 manufacturing industry in New Jersey.

41

42 13. The council is authorized to:

43 a. hold public hearings;

44 b. employ staff, responsible to the Executive Director of the  
45 State Employment and Training Commission, to assist the council  
46 to implement the purposes of this act; and

1 c. avail itself of the services of the employees and have access  
2 to the records of any instrumentality of the State, as necessary or  
3 useful to implement the purposes of this act.

4  
5 14. This act shall take effect immediately.

6  
7  
8 STATEMENT

9  
10 This bill requires various State entities to promote manufacturing  
11 career pathways for students and provides assistance to the  
12 manufacturing industry. Under the bill, the Secretary of Higher  
13 Education, in consultation with the Commissioner of Education, the  
14 Commissioner of Labor and Workforce Development, the New  
15 Jersey Council of County Colleges, the New Jersey Council of  
16 County Vocational Schools, and representatives of the business  
17 community, will design a manufacturing career pathway to be  
18 offered through the county colleges and county vocational school  
19 districts to provide students interested in pursuing a career in  
20 manufacturing with the instruction and skills necessary to gain  
21 employment in the manufacturing or advanced manufacturing  
22 sectors. The manufacturing career pathway will include traditional  
23 and advanced manufacturing processes and methods of production  
24 including, but not limited to, the machinery, technology, tools, and  
25 equipment used in a wide range of manufacturing industries.

26 Under the bill, the secretary, in consultation with the  
27 Commissioner of Labor and Workforce Development and the New  
28 Jersey Economic Development Authority, will establish the New  
29 Jersey STEM Entrepreneur Fellowship Program in county colleges  
30 and four-year institutions of higher education to fund no less than  
31 20 fellowships, administered by the secretary, which focus on  
32 supporting entrepreneurs in the STEM fields. The fellowships may  
33 be provided to individuals who have proven to the secretary that  
34 they have an idea to create, advance or develop a product in the  
35 STEM field which will have a beneficial impact on society and will  
36 result in a self-sustaining business in the future. The fellowships  
37 will be issued for three years each and will be used primarily to  
38 support the entrepreneurs in commercializing the idea and  
39 developing a well-structured business.

40 The bill establishes a “Higher Education Manufacturing Grant  
41 Program,” to be administered by a three-person commission which  
42 will include the Secretary of Higher Education, a representative of  
43 the New Jersey Manufacturing Extension Program, and a  
44 representative of the New Jersey Community College Consortium  
45 for Workforce and Economic Development. The commission will  
46 annually award \$10 million to New Jersey institutions of higher  
47 education, proprietary institutions, and county vocational school



1 districts for the purpose of establishing or expanding programs in  
2 the manufacturing fields.

3 The bill also requires the Commissioner of Education, in  
4 consultation with the Secretary of Higher Education, the Business  
5 Action Center in the Department of State, the New Jersey  
6 Manufacturing Extension Program, and representatives of business  
7 and industry, to establish and maintain a State-recognized list of  
8 industry-recognized credentials in the advanced manufacturing  
9 field. The list will assist county vocational school districts,  
10 institutions of higher education, and the workforce development  
11 system in developing appropriate educational programs to enable  
12 students to more adequately meet the advanced technical training  
13 needs in this field. Those entities will also identify courses of study  
14 for careers in emerging manufacturing industries, including careers  
15 in industrial marketing, mechanical engineering, computer science,  
16 electronics, and mechatronics.

17 Under the bill, the Secretary of State, in consultation with the  
18 Commissioner of Labor and Workforce Development, will  
19 designate an employee of the Department of State to act as a liaison  
20 between the State and manufacturing businesses located in this  
21 State. The duties of the liaison will be to assist manufacturing  
22 businesses by:

- 23 • advertising manufacturing businesses' products or services  
24 nationally and internationally through the Business Action  
25 Center; and
- 26 • establishing a business referral service where manufacturing  
27 businesses may be referred to other State, federal, or private  
28 business resource organizations.

29 The Secretary of State is to work with State departments,  
30 agencies, boards, commissions, and authorities to direct resources,  
31 create incentives, and provide technological, financial, and  
32 workforce development opportunities for manufacturing businesses.

33 The bill also provides that the New Jersey Economic  
34 Development Authority, in consultation with the Business Action  
35 Center and an institution of higher education, may designate an  
36 institution of higher education or other entity as a manufacturing  
37 and production business resource center to provide services and  
38 assistance to manufacturing businesses to assist them to modernize,  
39 maximize their efficiency, and expand their production through the  
40 development and commercialization of innovative products. Under  
41 the bill, the authority will refer a manufacturing business deemed  
42 eligible to a manufacturing and production business resource center  
43 or other organization qualified to provide services to small and mid-  
44 sized manufacturing businesses. The bill sets forth the various  
45 services that will be provided by the manufacturing businesses.

46 The bill also establishes in the New Jersey State Employment  
47 and Training Commission, the New Jersey Advanced  
48 Manufacturing Council. The council will consist of 11 members

- 1 who are individuals with experience in the fields of labor,  
2 education, or workforce development or training. The bill directs  
3 the council to:
- 4 • convene and enable industry-led, private-public partnerships  
5 focused on engaging New Jersey institutions of higher  
6 education in manufacturing innovation;
  - 7 • design and implement an advanced manufacturing initiative  
8 to facilitate collaboration and information sharing across  
9 State departments and agencies;
  - 10 • assist private companies to enhance technological transfer in  
11 New Jersey manufacturing industries to help companies  
12 overcome technical obstacles to scaling up production of  
13 new technologies; and
  - 14 • submit an annual report to the Governor, to the Legislature,  
15 and to the State Employment and Training Commission, of  
16 its assessments and recommendations to enhance State  
17 policy related to the advanced manufacturing industry in  
18 New Jersey.