

HOUSE BILL 804

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CF SB 369

By: **Delegates Guyton, Boteler, Boyce, Ebersole, Fennell, Griffith, Hettleman, Mangione, Metzgar, Proctor, and P. Young**

Introduced and read first time: February 3, 2020

Assigned to: Economic Matters

A BILL ENTITLED

1 AN ACT concerning

2 **Workgroup to Study Maryland's Emerging Digital Economy**

3 FOR the purpose of establishing the Workgroup to Study Maryland's Emerging Digital
4 Economy; providing for the composition, chair, and staffing of the Workgroup;
5 prohibiting a member of the Workgroup from receiving certain compensation, but
6 authorizing the reimbursement of certain expenses; requiring the Workgroup to
7 study and make recommendations regarding certain matters relating to the State's
8 current and future workforce and emerging digital economy; requiring the
9 Workgroup to report its findings and recommendations to the General Assembly on
10 or before a certain date; providing for the termination of this Act; and generally
11 relating to the Workgroup to Study Maryland's Emerging Digital Economy.

12 Preamble

13 WHEREAS, Industry 4.0 refers to a new industrial revolution that focuses heavily
14 on interconnectivity, automation, machine learning, and real-time data; and

15 WHEREAS, Industry 4.0 marries production and operations with smart digital
16 technology, machine learning, and big data to create a more holistic and better connected
17 ecosystem for companies that focus on manufacturing and supply chain management; and

18 WHEREAS, Industry 4.0 empowers business owners to better control and
19 understand every aspect of their operation and allows them to leverage instant data to
20 boost productivity, improve processes, and drive growth; and

21 WHEREAS, For manufacturers, Industry 4.0 presents productive opportunities by
22 ushering in new operational technologies and allowing for enhanced implementation of
23 transformative workforce development; and

24 WHEREAS, In order for the manufacturing industry to capitalize on capital and

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 labor productivity opportunities, a corresponding transformation within the workforce is
2 required to ensure that the emerging skill needs are met; and

3 WHEREAS, While manufacturers move toward new business models built on data,
4 cyber-physical systems, and cloud computing, the demand for skilled labor with the
5 capabilities and confidence to work alongside new technologies and thrive in a digitized
6 workplace is critical and essential; and

7 WHEREAS, In response, manufacturers will need to employ updated training and
8 workforce development strategies to match evolving industry trends; now, therefore,

9 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,
10 That:

11 (a) There is a Workgroup to Study Maryland's Emerging Digital Economy.

12 (b) The Workgroup consists of the following members:

13 (1) three members of the Senate of Maryland, appointed by the President
14 of the Senate as follows:

15 (i) one member of the Education, Health, and Environmental
16 Affairs Committee;

17 (ii) one member of the Finance Committee; and

18 (iii) one member of the Budget and Taxation Committee;

19 (2) three members of the House of Delegates, appointed by the Speaker of
20 the House as follows:

21 (i) one member of the Ways and Means Committee;

22 (ii) one member of the Economic Matters Committee; and

23 (iii) one member of the Appropriations Committee;

24 (3) the Secretary of Information Technology, or the Secretary's designee;

25 (4) the Secretary of Commerce, or the Secretary's designee;

26 (5) the Secretary of Labor, or the Secretary's designee;

27 (6) one member of the Maryland Manufacturing Advisory Board (MMAB),
28 designated by the Chair of MMAB;

29 (7) one representative of the Regional Manufacturing Institute of

1 Maryland (RMI), designated by the President of RMI;

2 (8) one representative of the Maryland Association of Community Colleges
3 (MACC), designated by the Executive Director of MACC;

4 (9) one representative of the Maryland Independent College and
5 University Association (MICUA), designated by the President of MICUA;

6 (10) one representative of the University System of Maryland (USM),
7 designated by the Chancellor of USM;

8 (11) one representative of the Maryland Technology Development
9 Corporation (TEDCO), designated by the Executive Director and CEO of TEDCO;

10 (12) one representative of the Regional Additive Manufacturing Partnership
11 of Maryland (RAMP MD), designated by the Executive Director of RAMP MD; and

12 (13) four representatives from manufacturing companies currently
13 registered with the Maryland Department of Assessments and Taxation for the last 5 years,
14 designated by the Board of Directors of RMI.

15 (c) The President of the Senate and the Speaker of the House shall jointly
16 designate the chair and vice chair of the Workgroup from among the members appointed
17 by the President and the Speaker.

18 (d) The Department of Commerce shall provide staff for the Workgroup.

19 (e) A member of the Workgroup:

20 (1) may not receive compensation as a member of the Workgroup; but

21 (2) is entitled to reimbursement for expenses under the Standard State
22 Travel Regulations, as provided in the State budget.

23 (f) The Workgroup shall:

24 (1) examine existing academic research, data, statistics, and industrial
25 case studies to make recommendations to the General Assembly that manufacturing
26 organizations may use to adequately develop their workforce to meet the skill demands of
27 Industry 4.0;

28 (2) examine the current curriculums of the State's higher educational
29 institutions to determine whether students are fully prepared for the technology and
30 processes they will be exposed to in future manufacturing;

31 (3) examine whether current State training programs and resources for the
32 State's current workforce require modifications to prevent worker displacement resulting

1 from Industry 4.0;

2 (4) examine new strategies and incentives that manufacturers may use to
3 reskill the current workforce and invest in continuing educational training of employees;

4 (5) examine the research conducted by the Massachusetts Institute of
5 Technology (MIT) on the relationships between emerging technologies and the workforce
6 to enable a future of shared prosperity, entitled “The Work of the Future: Shaping
7 Technology & Institutions”, MIT Work of the Future, Fall 2019 Report;

8 (6) examine existing financial resources available to manufacturers
9 seeking to invest in Industry 4.0 technology;

10 (7) make recommendations to facilitate the State’s robust entry into
11 Industry 4.0 technology to improve the perception of manufacturing careers, including:

12 (i) promoting the technological advancements of Industry 4.0 to
13 shift the perception of manufacturing careers for the entry–level workforce;

14 (ii) engaging students and educators through factory tours and
15 industry–sponsored manufacturing and STEM days, externship programs, and
16 student–shadowing days; and

17 (iii) advancing and creating public–private partnerships between
18 manufacturers, supportive community stakeholders, and education systems;

19 (8) employ workforce development strategies for manufacturers to attract
20 minorities, women, military veterans, millennials, and other groups to Industry 4.0 careers
21 that do not alienate the current workforce of Generation X and Baby Boomers;

22 (9) recommend various solutions for manufacturers to prepare for the
23 potential workforce gaps resulting from the loss of current workers by examining increased
24 training opportunities and creating best practices for manufacturers to use for workforce
25 succession planning after the retirement of essential workers, including cross–training and
26 job shadowing to transfer job knowledge from the exiting workforce to younger people
27 entering the workforce;

28 (10) evaluate and develop recommendations for long–term private–public
29 partnerships between educational institutions and manufacturers to develop curriculums
30 that address the rapidly changing needs of the manufacturing industry, including:

31 (i) exploring the role of manufacturers to influence the curriculums
32 of educational institutions by providing market feedback and skill requirements to
33 educators, as well as partnering to understand the development needs of the current
34 workforce; and

35 (ii) examining California’s 115th community college, founded in

1 2018, as a model for possible adoption in the State, which provides training to meet the
2 industry demand for highly trained, high-tech workers in the growing digital economy,
3 while increasing access for traditionally underserved populations through online education
4 and affordable certifications;

5 (11) propose appropriate annual State grant funding to create a statewide
6 training program to address the growing skills gap in the manufacturing workforce,
7 including the development of operators capable of programming automated equipment,
8 training for the next generation of automation technicians, and revising curriculums for
9 mechanical, electrical, and computer engineering related to industrial automation;

10 (12) examine formalizing mentorship or apprenticeship programs that
11 match new workers with more experienced and skilled workers to develop practical and
12 relevant skills within the daily production environment;

13 (13) examine new and viable tax credits and programs for manufacturers to
14 be more competitive and marketable in the new digital economy;

15 (14) examine the State's current statutory and regulatory authority over
16 manufacturing to examine potential reforms to attract new manufacturing businesses
17 brought by Industry 4.0 to invest in the State's economy and workforce; and

18 (15) recommend additional financial support delivery mechanisms, as
19 needed, to enable State manufacturers to adopt Industry 4.0 technology and enhance the
20 ability of industry service providers to increase the scope of their industry support.

21 (g) On or before December 1, 2021, the Workgroup shall report its findings and
22 recommendations to the General Assembly in accordance with § 2-1257 of the State
23 Government Article.

24 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July
25 1, 2020. It shall remain effective for a period of 2 years and, at the end of June 30, 2022,
26 this Act with no further action required by the General Assembly, shall be abrogated and
27 of no further force and effect.