

1 HB293  
2 204198-1  
3 By Representatives Collins and Baker  
4 RFD: Ways and Means Education  
5 First Read: 20-FEB-20

SYNOPSIS:           This bill would provide for the creation, membership, and functions of the Alabama STEM Council (Science, Technology, Engineering, and Mathematics) as an independent state entity to advise the Governor, Lieutenant Governor, State Department of Education, and Legislature and provide guidance and specific recommendations on ways to improve STEM-related education, career awareness, and workforce development across the state.

A BILL  
TO BE ENTITLED  
AN ACT

To create and provide for the purpose of the Alabama STEM Council (Science, Technology, Engineering, and Mathematics); to provide for the membership of the council, including the executive committee of the council, ex officio members, and additional members appointed by the Governor; to

1 provide for meetings; and to provide for the duties of the  
2 council.

3 BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

4 Section 1. For the purposes of this act, the  
5 following terms shall have the following meanings:

6 (1) EXECUTIVE COMMITTEE. The executive committee of  
7 the council.

8 (2) STEM. Science, technology, engineering, and  
9 mathematics.

10 (3) STEM CAREERS. Careers that utilize concepts from  
11 the STEM fields including, but not limited to, engineering,  
12 life science, astronomy, physics, chemistry, earth science,  
13 mathematics and computing, and information science; health and  
14 medicine including physicians, nurses, technicians, and  
15 psychologists; and social sciences including political science  
16 and economics.

17 (4) STEM COUNCIL. The Alabama Science, Technology,  
18 Engineering, and Mathematics Council.

19 (5) STEM EDUCATION. Entails more than achieving  
20 competency in individual STEM subject areas. Students must be  
21 able to integrate concepts from multiple disciplines and use  
22 that knowledge to solve complex problems. The term often  
23 includes instructional practices that actively engage all  
24 students in an interdisciplinary project or problem-based  
25 approach, tied to a real world, authentic challenge through  
26 which students use various technologies to assist their  
27 inquiry, research, and communication.

1           Section 2. The Alabama STEM Council (Science,  
2           Technology, Engineering, and Mathematics) is established as an  
3           independent state entity within the Alabama Department of  
4           Commerce Workforce Division to advise the Governor, Lieutenant  
5           Governor, State Department of Education, and Legislature on  
6           ways to improve STEM-related education, career awareness, and  
7           workforce development across the state. The Deputy Secretary  
8           of the Workforce Development Division of the Alabama  
9           Department of Commerce shall be responsible for the  
10          administrative functions of the STEM Council and, upon the  
11          recommendation of the executive committee, shall hire an  
12          individual employed by the department to serve as the director  
13          of the STEM Council. The director shall serve in that position  
14          at the pleasure of the STEM Council. The staff of the division  
15          shall provide support to the STEM Council as necessary to  
16          fulfill the duties of the STEM Council.

17          Section 3. (a) The membership of the STEM Council  
18          shall consist of a designee of the Governor, who shall serve  
19          as chair, all appointed and ex officio members of the  
20          executive committee as provided in subsection (b), and  
21          additional members appointed from the state as provided in  
22          subsection (c).

23          (b)(1) The STEM Council shall be under the direction  
24          of an executive committee. The executive committee shall  
25          consist of 11 members appointed from the state at large and  
26          certain specific ex officio members. The at large members  
27          shall each have proven expertise in STEM education or

1 workforce development and shall be appointed by the Governor  
2 for initial terms of two or four years, as determined by lot,  
3 and for four-year renewable terms thereafter. The ex officio  
4 members shall include all of the following:

5 a. The State Superintendent of Education, or his or  
6 her designee.

7 b. The Secretary of the Department of Early  
8 Childhood Education, or his or her designee.

9 c. The Chancellor of the Alabama Community College  
10 System, or his or her designee.

11 d. The Executive Director of the Alabama Commission  
12 on Higher Education, or his or her designee.

13 e. The Secretary of the Alabama Department of Labor,  
14 or his or her designee.

15 f. The Secretary of Commerce, or his or her  
16 designee.

17 g. The Chair of the Alabama Workforce Council, or  
18 his or her designee.

19 h. The Chair of the Alabama Workforce Innovation and  
20 Opportunity Act Board, or his or her designee.

21 i. The Chair of the Alabama Council of College and  
22 University Presidents, or his or her designee.

23 (2) The executive committee shall conduct business  
24 on behalf of the STEM Council including, but not limited to,  
25 launching initiatives, making final recommendations, and  
26 addressing issues related to the director of the STEM Council.  
27 The executive committee shall also develop operating policies

1 and procedures for the STEM Council, the director, and any  
2 staff utilized by the STEM Council.

3 (c)(1) The additional appointed members of the STEM  
4 Council shall include all of the following:

5 a. One member appointed by the Governor from each of  
6 the seven congressional districts in the state. If the number  
7 of congressional districts changes, the number of at-large  
8 memberships shall be adjusted, if necessary, so that each  
9 congressional district is represented.

10 b. Additional members, as determined necessary by  
11 the Governor, appointed by the Governor from the state  
12 at-large.

13 (2) The additional appointed members of the STEM  
14 Council shall be appointed by the Governor for initial terms  
15 of two or four years, as determined by lot, and for four-year  
16 renewable terms thereafter, and shall represent STEM  
17 stakeholders in the state including, but not limited to,  
18 representation from each group of the following STEM industry  
19 sectors:

20 a. Advanced manufacturing, aerospace, agribusiness,  
21 astronomy, automotive, biotechnology, chemistry, computer and  
22 information technology, construction, economics, energy,  
23 engineering, geoscience, health care, homeland security, life  
24 science, mathematics, nanotechnology, physics, artificial  
25 intelligence, and robotics.

1           b. Higher education, postsecondary training  
2           institutions, and career and technical education; and pre-K,  
3           early childhood, elementary, middle, and secondary education.

4           c. Afterschool, out of school, and informal STEM  
5           educational organizations.

6           d. Additional qualifying members as determined  
7           appropriate by the Governor.

8           (d) The Governor shall coordinate his or her  
9           appointments to the STEM Council and the executive committee  
10          so that diversity of gender, race, and geographical areas is  
11          reflective of the makeup of this state.

12          Section 4. (a) STEM Council members shall serve  
13          until their successors are appointed. A vacancy shall be  
14          filled in the manner provided for the original appointment. An  
15          individual appointed to fill a vacancy on the STEM Council  
16          shall serve only for the remaining unexpired portion of the  
17          term.

18          (b) Each member of the STEM Council shall serve in  
19          an advisory capacity and shall receive no compensation for his  
20          or her services other than reimbursement for traveling and  
21          other expenses actually incurred in the performance of  
22          official duties. Expenses shall be paid in the same manner and  
23          amount as is provided for other state officers and employees  
24          and persons traveling on official business for the state or  
25          any of its departments, institutions, boards, bureaus,  
26          commissions, councils, committees, or other like agencies.

1 Expenses shall be paid out of any funds appropriated to the  
2 STEM Council and processed in the manner provided by law.

3 (c) The initial organizational meeting of the STEM  
4 Council shall be held within 45 days after the last member is  
5 appointed to the STEM Council. At the initial organizational  
6 meeting, the STEM Council shall establish procedures and other  
7 policies necessary to perform the business of the STEM  
8 Council, including the establishment of a quorum. Thereafter,  
9 the STEM Council shall meet at least twice a year, and more  
10 frequently upon the call of the chair. Members of the STEM  
11 Council may participate in a meeting of the STEM Council by  
12 means of telephone conference, video conference, or similar  
13 communications equipment by means of which all persons  
14 participating in the meeting may hear each other at the same  
15 time. Participation by electronic means shall constitute  
16 presence in person at a meeting for all purposes. A majority  
17 of a quorum of the members of the STEM Council, or, in the  
18 event of a meeting of only the executive committee, a majority  
19 of a quorum of the executive committee of the STEM Council  
20 must be physically present at the location noticed and called  
21 for the meeting in order to conduct any business or  
22 deliberation. Members of the STEM Council, the executive  
23 committee, and any subcommittees of the STEM Council may not  
24 utilize electronic communications except as in compliance with  
25 the Alabama Open Meetings Act. Notice of STEM Council meetings  
26 shall be provided in accordance with the Alabama Open Meetings  
27 Act, and telephone conference or video conference or similar



1 communications equipment shall also allow members of the  
2 public the opportunity to simultaneously listen to or observe  
3 meetings.

4 Section 5. The chair or the director, subject to the  
5 approval of the chair, may direct the STEM Council to form  
6 subcommittees to address particular issues facing STEM  
7 education or STEM workforce, or both. The composition and  
8 duties of each subcommittee shall be determined by the chair.  
9 Each department and agency of the state shall cooperate with  
10 the STEM Council. The STEM Council may seek the expertise and  
11 services of individuals and entities outside of its membership  
12 as necessary to accomplish its mission.

13 Section 6. The STEM Council may establish a  
14 foundation to assist in the development and implementation of  
15 the programs to promote STEM education, STEM workforce  
16 development, and STEM careers. The foundation may solicit and  
17 receive contributions from a private organization for  
18 objectives described in this act.

19 Section 7. The STEM Council shall do all of the  
20 following:

21 (1) Serve as the primary point of contact for  
22 communicating with state and national STEM organizations.

23 (2) Oversee and continuously revise the  
24 implementation and maintenance of the state STEM strategic  
25 plan, developed by the Governor's Advisory Council on  
26 Excellence in STEM.

1           (3) Coordinate communication efforts to increase  
2     STEM awareness, illustrate the value of STEM learning, and  
3     highlight STEM careers, with particular emphasis on reaching  
4     underrepresented segments of the population.

5           (4) Develop and implement a Governor's STEM Seal of  
6     Approval, utilizing an evidence-based rubric to recognize  
7     individual programs or periodic events that advance STEM  
8     principles and learning across the state.

9           (5) Work with the office of the Governor to  
10    incorporate a STEM Career Exploration and Discovery module  
11    into the Alabama College and Career Exploration Tool (ACCET),  
12    that allows stakeholders to identify STEM opportunities  
13    offered across the state including, but not limited to,  
14    afterschool, out-of-school, and summer programs, and  
15    professional learning opportunities.

16          (6) Conduct comprehensive, external evaluations, as  
17    needed or requested, of STEM-based curricula and educational  
18    initiatives that receive funding from the Education Trust  
19    Fund, beginning with the Alabama Mathematics, Science, and  
20    Technology Initiative (AMSTI) and Alabama Science in Motion  
21    (ASIM) program to track the implementation of their continuous  
22    improvement plan. Assessment rubrics should incorporate  
23    criteria relevant to the goals and outcomes of each initiative  
24    including, but not limited to, impact on learning,  
25    effectiveness of human capital and organization performance,  
26    fidelity of implementation, equitable access, and other  
27    criteria. Where appropriate and feasible, evaluations shall

1 include evidence-based interventions including, but not  
2 limited to, those defined in the Every Student Succeeds Act  
3 (P.L. 114-95).

4 (7) Conduct comprehensive evaluations, as needed or  
5 requested, of state preservice preparation and inservice  
6 programs for educators teaching STEM subjects including both  
7 traditional and alternate pathways.

8 (8) Identify evidence-based and effective STEM  
9 initiatives, instructional and professional learning  
10 strategies, and scale their utilization across Alabama  
11 schools, afterschool programs, and other educational settings,  
12 with an emphasis on reaching traditionally underserved  
13 populations.

14 (9) Expand opportunities for STEM career exploration  
15 and discovery, especially among subgroups that are  
16 underrepresented in the STEM professions.

17 (10) Collaborate with the State Board of Education  
18 and the deans of two-year and four-year institutions of higher  
19 education in the state to develop educational certifications  
20 and endorsements related to the STEM fields, as well as  
21 incentives for an educator to earn these concentrations.

22 (11) Collect and aggregate relevant STEM data to  
23 track progress against the state STEM strategic plan,  
24 including data from the ATLAS on Career Pathways, STEM labor  
25 market information, measures of STEM achievement, and measures  
26 of both STEM and STEM career awareness, attitudes, and  
27 perceptions from P-20 learners.

1                   (12) Provide annual reports on progress towards  
2     implementing the state STEM strategic plan to the Governor,  
3     Lieutenant Governor, and Chairs of the Senate Finance and  
4     Taxation Education and House Ways and Means Education  
5     Committees.

6                   (13) Other goals and objectives as requested by the  
7     Governor or the Legislature.

8                   Section 8. This act shall become effective on the  
9     first day of the third month following its passage and  
10    approval by the Governor, or its otherwise becoming law.