

HJR 90
Study of Science, Math, and Technology Education
<http://dls.virginia.gov/TechEd.htm>
Capitol Building, House Room 1
Richmond, VA 23219
November 17, 2008, 10:00 AM

Meeting Summary

The Joint Subcommittee studying Science, Math, and Technology Education held its final meeting on November 17, 2008 in Richmond.

Presentations

Cindy Jones, President, Virginia Children's Engineering Council discussed the benefits of teaching children's engineering in grades K-5, and across subject areas. Ms. Jones highlighted several programs and schools in Virginia that are making the effort in the area of children's engineering and encouraged the joint subcommittee to find a way to promote children's engineering by funding the professional development necessary for teachers to feel comfortable incorporating the fundamentals of engineering into every subject area. She estimated that it would take between \$1.5 and \$3 million to make sure that there were at least several teachers in every school or in every school division that could be trained and then such teachers take that knowledge back to their schools to train others.

Dr. Darrel W. Staat, President of Central Virginia Community College and Dr. James Groves, Assistant Professor & Assistant Dean for Research & Outreach, UVA provided the joint subcommittee with information about the "Produced in Virginia" program. "Produced in Virginia" is a partnership between the School of Engineering and Applied Science at the University of Virginia and the Central Virginia Community College (CVCC) that offers students the ability to earn an Associate of Science in Engineering (or equivalent) degree and become eligible to enter into the U.Va. Engineering Science undergraduate program. Students can ultimately earn their Bachelors of Science degrees in engineering science by successfully completing a mixture of on-site and distance learning courses. The first students to participate entered the program in the fall of 2007 and are currently 18 months into the program. A local company in Lynchburg funded the majority of the start-up costs for CVCC and, along with 12 other local companies, funded many scholarships for tuition, fees, and books. Additionally, the local companies have hired many of the engineering students for internships. Currently no state money is supporting the program, but UVA and the VCCS intend to continue with expansion plans because the need for the program has become evident. Partnerships with companies located near community colleges so far have provided the best option for steady funding and it is in the companies' best interests to hire local employees.

Public Comments

The joint subcommittee heard brief public comments before taking a vote on the final recommendations. Comments included support for: a children's engineering curriculum in grades K-5; an interdisciplinary approach to the teaching of the STEM subjects of science, technology, engineering, and math; and support for the funding of math specialists.

Final Recommendations

The joint subcommittee approved the following recommendations and such recommendations will be advanced during the upcoming 2009 Regular Session of the General Assembly.

- A resolution recognizing the seven new Career and Technical Education Academies and encouraging local school divisions to consider establishing an academy based on the Board of Education criteria for establishing a Governor's Career and Technical Education Academy.
- A resolution endorsing and supporting Project Lead the Way and recent efforts on the part of the Department of Education to provide four start-up grants in 2008 for schools to implement Project Lead the Way.
- Add section requiring the Center for Innovative Technology to survey Virginia's technology industry every two years on the demand for graduates in STEM fields and report findings to institutions of higher education, the General Assembly, and the Joint Commission on Technology and Science.
- A resolution recognizing the efforts of UVA and the Virginia Community College System, specifically Central Virginia Community College, to collaborate in establishing an engineering partnership that offers students the ability to earn an Associate of Science in Engineering (or equivalent) degree and become eligible to enter into the U.Va. Engineering undergraduate program. Students can ultimately earn their Bachelor of Science degrees in engineering by successfully completing a mixture of on-site and distance learning courses.
- A resolution encouraging school systems to use existing intervention, remediation, and at-risk funding to hire K-8 mathematics teacher specialists as an effective means to improve the performance of low achieving students and to support K-8 mathematics specialists who have earned the Virginia Board of Education's licensure endorsement. Mathematics specialists would provide targeted mathematics intervention and remediation.
- A resolution directing the Board of Education to study the need for creating either a STEM teacher specialist endorsement, a science teacher specialist endorsement,

or a combination of the two and to report to the General Assembly by January 1, 2011.

In addition to the recommendations listed, there were numerous suggestions and recommendations generated by the joint subcommittee with an eye toward an improved economic landscape and all of such recommendations will be highlighted in the Final Report. An Executive Summary of the joint subcommittee's findings and recommendations for the year will be submitted no later than the first day of the 2009 Regular Session and a Final Report will soon follow.

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