

HJR 25 (2006)
**Joint Subcommittee Studying Science, Math, and Technology Education
in the Commonwealth at the Elementary, Secondary, and Undergraduate Levels**

Summary for the December 4, 2006 Meeting

The fourth meeting of the Joint Subcommittee took place on December 4, 2006 in Richmond. After the chairman called the meeting to order, the subcommittee heard presentations from the Virginia Department of Education, the Director of the Virginia Tech School of Education, and Micron Technology, Inc.

Speakers

James Firebaugh, the Director of Middle and High School Instruction for the Virginia Department of Education, provided the subcommittee with an overview of the procedures for initiating an academic-year Governor's School. He noted first that is generally a simple process initiated at the local level. Once a local group has decided to pursue the creation of a Governor's school, it must go to the General Assembly for a planning grant through the Appropriation Act. The group requesting to implement an Academic-Year Governor's School must provide the Department of Education with certain documentation, such as: (i) the existence of an active, on-going Governor's School Planning Committee of superintendents or their designees from the participating school divisions; (ii) the design of the Governor's School program; (iii) a statement of need/rationale for the school; and (iv) a brief description of the proposed program including site location, number of students, grade levels, and general curriculum designs. If the Board of Education approves the plan, the local group approaches the General Assembly during its next Session and seeks funding for implementation of the plan. The entire process could take approximately 18 months which includes the formation of the initial regional planning committee and its contact with members of the regional legislative delegation. Mr. Firebaugh explained that the length of the process is mainly to ensure that there is a need and that the local community will support the proposed school. There are currently 18 Academic-Year Governor's Schools serving 119 of the 132 school divisions, including three that grant diplomas as full-time Governor's Schools.

Dr. Sue Magliaro, the Director of the Virginia Tech School of Education, addressed academic programs for teachers in the math, science, and technology subject areas and various infrastructure investments relating to the STEM fields. Dr. Magliaro first gave an overview of the School of Education, informing the joint subcommittee that there are currently 1,116 graduate students enrolled in 23 different programs and Virginia Tech's vision is to become an international leader in P-12 STEM and Educational leadership. Virginia Tech's Professional Education program provides the curriculum necessary for teachers to become licensed. The Teacher Education programs include: agricultural ed, elementary ed, career and technical ed, English, foreign language, history and social science, mathematics, music, and science. Dr. Magliaro emphasized that the School of Education is conducting research to look at the core curriculum areas to find

ways in which the STEM fields can be infused across the entire curriculum. For example, there is an earth sustainability curriculum that features philosophy, science, global warming, etc. instead of a traditional earth science course. Virginia Tech is committed to STEM education and hopes to develop a biotechnology curriculum, a technology specialist endorsement, and STEM professional development institutes for P-12 teachers in the near future. The presentation also highlighted the VT Stars program which currently serves five high schools in the Danville area. The program targets the achievement gap in math and science of economically at-risk students and promotes teaching outside of the traditional classroom activities in order to sustain motivation.

Todd House, the Virginia Government Affairs Manager from Micron Technology, Inc., provided the subcommittee with an overview of the educational activities that Micron, Inc., a private technology company, has been involved in around the Commonwealth. Mr. House emphasized Micron's interest in STEM education and outreach in K-12, and also the importance of STEM education generally as Micron may face significant workforce recruiting issues in the future.

Terry Leslie, the University and Academic Relations Manager, Micron Technology, Inc., discussed Micron's educational strategy and informed the committee that the corporation has worked with over 4,000 students and teachers through its educational outreach since 2005. Micron's strategy in grades K-12 is to create an early interest in STEM education and to provide role models and career information through Micron employees that volunteer to go to elementary schools to assist with STEM projects. Additionally, the Micron Foundation awards up to 13 scholarships to high school seniors pursuing a degree in a math, science, or engineering field. Mr. Leslie also made several recommendations to the joint subcommittee in order to address the shortage of graduates in these fields including: (1) recruitment of more science and math teachers; (2) increased monetary investments in research; (3) provision of undergraduate scholarships to increase BS degrees in sciences, engineering, and math; and (4) enhanced IP protection.

Joint Subcommittee Plan for 2007 Interim

The Joint Subcommittee agreed to meet for its first meeting of the 2007 interim in March, after the 2007 Regular Session of the General Assembly. Up until that time, the joint subcommittee agreed that members should communicate any ideas or suggestions for the 2007 interim meetings to staff.

Chairman: Delegate John A. Cosgrove

Contact: Patrick Cushing, Staff Attorney, Division of Legislative Services

Nicole M. Seeds, Staff Attorney, Division of Legislative Services