

BOARD OF EDUCATION OF HARFORD COUNTY
INFORMATIONAL REPORT
ANNUAL REPORT OF THE CITIZEN ADVISORY COMMITTEE ON
CAREER AND TECHNOLOGY EDUCATION
OCTOBER 24, 2016

Background Information:

Each year, the Superintendent of Harford County Public Schools (HCPS) recommends to the Harford County Board of Education the areas of study to be pursued by each of the Citizen Advisory Committees appointed by the Board of Education. A charge or area of study is provided to each Citizen Advisory Committee to be completed during the following calendar year. The Citizen Advisory Committee reports their findings in October of each year.

The Harford County Citizen Advisory Committee on Career and Technology Education (CTE), formerly the Harford County Citizen Advisory Committee on Vocational - Technical Education, was created by an amendment to the Federal Vocational Education Act in 1976 to advise both the Board of Education of Harford County and the Board of Trustees of Harford Community College on matters pertaining to vocational and occupational education.

The Advisory Committee has been an integral part of every decision made to strengthen career and technology education for over three decades. The Advisory Committee has:

- Played a significant role in the planning and construction of the Harford Technical High School (formerly Harford Vocational-Technical High School) and subsequent additions, including the William H. Amoss Performing Arts Center;
- Been instrumental in forming a strong articulation between the Harford County Public Schools (HCPS) and the Harford Community College;
- Worked collaboratively with the business community, the Susquehanna Workforce Network and the school community to establish partnerships that promote career and technology education;
- Participated in the planning, implementation, and evaluation of CTE programs; and
- Endorsed applications for Carl D. Perkins and other CTE grants each year.

Discussion:

Over the past school year, the Citizen Advisory Committee on Career and Technology Education (herein referred to as “the Committee”) notes the following accomplishments, recommendations, and proposed charge for the 2016-17 school year.

Accomplishments

- 1. Advocacy for local set-aside funding for career and technology education.**
Since the formerly restricted Career and Technology “Set-Aside” funds (State Categorical Grant) became unrestricted in 2002, the Committee has been seeking the continual allocation of local funding for CTE programs. The FY 2016 Operating Budget approved by the Board included funding for equipment service contracts (\$10,028 on equipment like an engineering copier, printing press, and commercial food equipment); hazardous waste removal (\$10,000 to Safety-Kleen for removal of paints and solvents at Harford Technical and North Harford High Schools); student transportation to Career and Technology Student Organization competitions (\$8,960 for over 200 students participating in regional and state competitions of Future Business Leaders of America (FBLA), Future Farmers of America (FFA), Distributive Education Clubs of America (DECA), and Skills USA) and clinical experience sites (\$7,000 for buses for Academy of Health Professions student trips to Upper Chesapeake Medical Center, Harford Memorial Hospital, and Lorien Nursing Home); CTE teacher attendance at Career and Technology Student Organization competitions and conferences (\$2,500 for costs associated with sending 7 sponsors of CTE students to national FFA and FBLA competitions and sending 2 teachers to SkillsUSA conferences); and materials and supplies (\$97,000 for consumable materials).
- 2. Development of a Five-Year CTE Program Improvement Plan.**
Committee members reviewed short- and long-term program upgrades, additions, and deletions needed to align to the model Maryland State Department of Education CTE Programs of Study and gathered data on selected CTE programs for strategic planning. Identification of these programmatic needs is vital in addressing the Board of Education’s FY 2016 charge to the Committee to “evaluate the adequacy of the Career and Technology Education programs being offered in all high schools in terms of meeting both student and workforce needs, investigate non-traditional funding sources to support CTE programs, and continue to address the recommendations from the Maryland State Department of Education, Division of Career and College Readiness, monitoring site visit.” Programs to be considered for future implementation include: Computer Science, Interactive Media, Electronics/Robotics/Pneumatics, Academy of Information Technology, and Manufacturing/Logistics/Distribution. Current programs that are recommended for expansion include: Pre-Engineering, and Biomedical Sciences. (See Attachment A for a chart of current CTE programs.)
- 3. Review and approve the Harford County Public Schools application for the Carl D. Perkins Grant for fiscal year 2016-17.**
Committee members reviewed and approved this application prior to submission to MSDE. In August 2016, a total of \$288,225 was awarded to Harford County Public Schools for CTE equipment/materials upgrade and teacher professional development for the thirty-three approved CTE programs in the county.
- 4. Review and approve the Harford County Public Schools application for four Reserve Grants for fiscal year 2016-17.**
Committee members reviewed and approved the applications prior to submission to MSDE. In August 2016, a total of \$43,461 was awarded to Harford County Public Schools

for the implementation of the Academy of Health Professions program at Harford Technical High School and for professional development for teachers in the Teacher Academy of Maryland, Automotive Technologies, Homeland Security and Emergency Preparedness, Career Research and Development, Pre-Engineering, PrintED, Business Management and Finance, and CISCO programs.

Recommendations

1. Short-Term Goals (within 1-2 years):

- Solidify funding resources to support the Project Lead the Way (PLTW) Middle School Pre-Engineering program, Gateway to Technology (GTT) in all middle schools.

Progress to date: Start-up funds to implement this program in all nine middle schools have been provided through the Harford County Public Schools Operating and Capital Budgets; the Maryland Science, Technology, Engineering and Mathematics (STEM) Education Grant; the Science Applications International Corporation (SAIC-now Leidos) and Carl D. Perkins Reserve Grants. Teachers from the last three schools to implement the program, Edgewood, Magnolia and Patterson Mill Middle Schools, will complete training this summer. The goal is to offer content modules to students in all three grades, 6, 7, and 8, as part of the Unified Arts rotation at each middle school.

- Upgrade the Accounting and Finance, Marketing, and Business Management programs within the Business Management and Finance cluster to align with the new course descriptions and sequencing developed through a partnership between the Maryland State Department of Education (MSDE) and the University of Maryland Eastern Shore (UMES).

Progress to date: Four teachers received training on the new alignment and the updated program proposal was submitted to and approved by MSDE. It was approved by the General Curriculum Committee for implementation in 2016-17. Since this proposal was submitted, additional changes in the scope and sequence of the courses in these programs were made at the state level and these will necessitate additional time for teacher training and planning during the 2017-18 school year.

- Amend the Academy of Health Professions program at Harford Technical High School to include the Physical Rehabilitation pathway.

Progress to date: In addition to the original pathway for Certified Nursing Assistant being offered in this program, a second pathway for Certified Clinical Medical Assistant was added in 2016-17. A third pathway for Physical Rehabilitation, will be added for the 2017-18 school year, pending approval from the Maryland State Department of Education.

- Work with the Office of Grants, Business and Community Partnerships to develop a process to validate partnerships which can increase mentoring and/or internship

opportunities for students in CTE programs.

Progress to date: A HCPS Partnership Network Site has been developed to offer a place where school system needs and community partnership opportunities can be matched to maximize resources. Promotion of this site to both internal and external stakeholders is now the focus.

- Amend the Career Research and Development program to include apprenticeship and dual enrollment opportunities.

Progress to date: The current program consists of two in-school workplace readiness courses and two credits of work-based learning experience. On-going dialogue with representatives of Harford Community College are focused on adding dual enrollment opportunities for the second course in the sequence and apprenticeship opportunities in a variety of STEM areas.

2. Mid-Term Goals (within 3-5 years):

- Implement the state developed Interactive Media program at high schools with communication studios including: Bel Air, Edgewood, North Harford, and Patterson Mill.

Progress to date: The Maryland State Department of Education has revised the Interactive Media Production Program of Study to include three pathways- Graphic Design, Interactive Media and Digital Media. The Digital Media pathway will focus on creating cross-platform interactive media products which incorporate text, graphics, animation, video, scripted interaction and sound.

- Upgrade the Automotive Refinishing and Collision Repair program at Harford Technical High School to align with the Autobody/Collision Repair Technician program curriculum in accordance with the Inter-Industry Conference on Auto Collision Repair (I-CAR), National Technicians Education Foundation (NATEF) and Automotive Service Excellence (ASE) guidance and directives.

Progress to date: This program upgrade was referenced in the job description for a new instructor at Harford Technical High School for the 2015-16 school year. Consideration will be given to allow this teacher time to demonstrate effective teaching skills and classroom performance before beginning teacher and program certification by the NATEF and ASE.

- Upgrade the Food Preparation and Management program at Harford Technical High School to align with the Culinary Arts program curriculum in accordance with the American Culinary Federation (ACF) standards.

Progress to date: This program upgrade was referenced in the job description for a new instructor at Harford Technical High School for the 2015-16 school year. Consideration will be given to allow this teacher time to demonstrate effective teaching skills and classroom performance before beginning teacher and program certification by the ACF.

- Develop and implement new CTE programs related to the Transportation, Logistics and Manufacturing industries to address the labor market needs of the Susquehanna Workforce Investment Area (SWIA).

Progress to date: The Maryland State Department of Education is researching the viability of developing a high school program of study in logistics/distribution with postsecondary connections to Morgan State University and the Community College of Baltimore County. Anne Arundel Community College has developed a program in transportation, logistics, and supply chain management which could be used as a model. Representatives from Harford County Public Schools will independently investigate the feasibility of a locally developed program.

- Explore possible CTE program options related to wastewater treatment operations and content that integrates chemistry, biology, and physics principles with technical skills to address local labor market needs.

Progress to date: Information was provided to The Citizen Advisory Committee for Career and Technology Education on wastewater treatment operations in the county and related careers in the infrastructure industry. CTE programs that may be explored include: the existing Natural Resources and Agricultural Sciences and Career Research and Development programs, and the new MSDE Environmental Studies/Natural Resources program of study.

- Determine seat capacity based on facility utilization as a basis for determining the location of future magnet/signature programs. Consider magnet program facility, staffing, transportation, equipment, and supply needs during Operating Budget deliberations.

Progress to date: In order to consolidate resources and maximize facility usage, the location and content of each of the existing 33 approved CTE programs in the county is being reviewed through the collaborative efforts of the Citizen Advisory Committee for Career and Technology Education and the offices of Curriculum Instruction, and Assessment, Educational Services, and Operations.

3. Long-Term Goals (5-10 years):

- Implement the state developed Computer Science program at Havre de Grace Middle/High School as a magnet program offered to students across the county.

Progress to date: This program has been approved by the Harford County Board of Education as part of the Havre de Grace Middle/High School Educational Specifications when funded through the Capital Budget. This program will replace the current Computer Programming program offered at five high school sites.

- Increase the number of students accessing the Project Lead the Way Biomedical Sciences program by expanding the program to additional high schools should county funding become available.

Progress to date: The program is being implemented at Bel Air and Havre de Grace High Schools with funding from the Maryland Science, Technology, Engineering

and Mathematics (STEM) Education Grant; Carl D. Perkins Grant; CTE Reserve Grants; and Harford County Public Schools Operating and Capital Budgets to support teacher training and the purchase of equipment/materials.

- Increase the number of students accessing the Project Lead the Way Pre-Engineering program by expanding the program to additional high schools should county funding become available.

Progress to date: The program is being implemented at Aberdeen and C. Milton Wright High Schools with funding from the Carl D. Perkins Grant, CTE Reserve Grant, and Harford County Public Schools Operating and Capital Budgets to support teacher training and purchase of equipment/materials.

- Expand the quantity and quality of CTE programs offered to students (e.g., Academy of Information Technology or Electronics/ Robotics/Pneumatics).

Progress to date: These programs are identified on the Career and Technology Education Five-Year Plan for Program Improvement.

Proposed Charge for 2016-17 School Year

The Committee requests to pursue the following areas of study during the 2016-17 school year:

1. Evaluate the adequacy of the Career and Technology Education programs being offered in all high schools in terms of meeting both student and workforce needs.
2. Investigate non-traditional funding sources to support CTE programs, and monitor the progression of apprenticeship/internship programs.

The Committee would like to thank the Harford County Board of Education for allowing the Committee the opportunity to present our views. These views are from professionals, parents, and students in many of our public schools throughout Harford County. We would like to thank Superintendent Mrs. Barbara Canavan, Mr. Robert M. Limpert, Ms. Patrice Ricciardi, and all of the current Committee members. We look forward to serving the Board of Education and the citizens of Harford County by providing the citizens' perspective and advice related Career and Technology Education in Harford County Public Schools.

	Alt Ed	AHS	BHS	CMW	EHS	FHS	HGHS	HTHS	JHS	NHHS	PMHS
1. Arts, Media, and Communication											
• Printing and Graphic Communications								X			
2. Business, Finance, and Information Technology											
• Academy of Finance					X						
• Accounting		X	X	X	X	X	X		X	X	X
• Business Management		X	X	X	X	X	X		X	X	X
• Cyber Security								X			
• Computer Programming		X		X		X				X	
• Marketing		X	X	X	X	X	X		X	X	X
3. Health and Human Services											
• Academy of Health Professions (Nursing Assistant)								X			
• Biomedical Sciences			X				X				
• Early Childhood Education		X	X	X	X	X	X		X	X	X
• Fire Rescue/EMT		X	X	X	X	X	X	X	X	X	
• Food and Beverage Management (ProStart)		X	X	X	X	X	X		X	X	X
• Food Production and Management								X			
• Health Occupations (Sports Technician and Exercise Science)								X			
• Homeland Security and Emergency Preparedness									X		
• Licensed Cosmetology								X			
• Teacher Academy of Maryland		X	X	X	X					X	X
4. Science, Engineering, and Technology											
• Agriculture/Animal Science								X		X	
• Automotive Diagnostics and Systems Repair								X			
• Automotive Refinishing and Collision Repair								X			
• Brick and Block Masonry								X			
• Carpentry								X			
• Certified Welding								X			
• Computer-Aided Design and Drafting								X			
• Computer-Aided Machining and HPM								X			
• Computer and Networking Technology								X			
• Electricity								X			
• Heating, Air Conditioning and Refrigeration Technology								X			
• Horticulture/Floral Design								X		X	
• Natural Resources and Agricultural Sciences										X	
• Pre-Engineering		X		X							
5. Career Research and Development	X	X	X	X	X	X	X		X	X	X

* Currently being developed for MSDE approval
X Program is approved and being implemented