

**CAREER AND TECHNICAL EDUCATION  
ADVISORY COMMITTEE**

**ANNUAL REPORT**

**TO THE**

**FAIRFAX COUNTY SCHOOL BOARD**

**Instruction Committee**

**December 18, 2006**

**CTEAC ANNUAL REPORT TO SCHOOL BOARD**  
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The Career and Technical Education Advisory Committee (CTEAC), is pleased to submit this Annual Report to the Fairfax County School Board. The report begins with an executive summary of the Committee's recommendations, and then briefly summarizes our meetings during the 2005-06 school year, detailing activities in three key areas in keeping with our charter:

- Promoting understanding and support of Career and Technical Education (CTE),
- Reviewing program needs and the adequacy of resources, and
- Correlating services, promoting efficiencies, and establishing measurable goals.

The report concludes with a brief statement of our future committee direction. A review of the accomplishments in Career and Technical Education instructional programs (Appendix A), our Annual Performance Report for Career and Technical Education from the Virginia Department of Education (Appendix B), and the membership and attendance roster for 2005-2006 (Appendix C) are attached.

**Executive Summary of Recommendations**

The CTEAC makes the following specific recommendations to the School Board:

- 1. Ensure CTE considerations are included in designing the High Schools of the Future:** CTEAC participation in the FCPS High Schools of the Future initiative is critical if we are to create a delivery model that will both allow greater access to CTE courses for students across the county and provide transition opportunities for students, such as articulation and dual enrollment. We request that the School Board recognize that planning and review activities will require additional resources in the FY 2008 budget and beyond for items such as additional planning staff and program promotion.
- 2. Improve transportation for equitable access to CTE courses:** Continue to review and come to a decision in order to implement near-term solutions to the academy transportation and bell-schedule alignment challenges. Opportunities offered at the academies and specialized site locations are not fully accessible to all students on an equitable basis, due to the ever-growing regional transportation crisis and decentralized bell schedules.
- 3. Increase value to students via additional certifications:** Continue to provide resources to support the number of industry certifications offered to students. The funding provided has led to the annual increase in the number of certifications awarded within CTE programs -- over 2,300 certifications were earned in the 2005-06 school year, more than an 80% increase from those awarded in 2004-05 school year (see Appendix A). An important part of the mission of the CTE program is to provide students with enhanced employment skills. Industry certifications provide critical opportunities for students to either move directly into the workforce or develop skills that can lead to high-paying part-time employment while they pursue postsecondary education. Industry certifications also serve as important barometers on the quality and currency of the FCPS CTE curriculum, especially in the fast-changing industries that make up our regional economy.
- 4. Increase value to students via additional articulation/dual enrollment opportunities:** As mentioned in previous reports, the committee recommends that the School Board continue the success brought by Target 7 by expanding the current fine and practical arts goal to include the related objectives of increasing the number of college articulation and dual enrollment agreements, and/or the number of students eligible to receive articulation credits. This would align the goal with the National Governors Association's "Redesigning American High Schools" initiative, which has the

stated objective to provide every student in America with the opportunity to earn postsecondary credit or an industry-recognized credential while still in high school. Ensure that Target 7 momentum continues by incorporating these into more specific goals as the school board transitions from 10 targets to three strategic goals.

5. **Expand enrollment in courses critical to the county’s economy by considering gender imbalance issues:** As recommended via the Committee’s April 27, 2006 memo to the School Board, the Committee recommends that the Board determine the merit for study of the issue of gender imbalance in enrollment of Information Technology programs. As detailed in the memo, the Committee recommends that the School Board assess the current situation and its implications, determine its desired end state, and understand the changes that can best lead to that state. If appropriate, CTEAC asks the School Board to develop or support development of an action plan for implementing appropriate measures. We look forward to the School Board’s response.
  
6. **Monitor to maintain and improve quality programs:** Continue to fund and support staff efforts to increase accountability through the Exemplary Standards project, which was expanded to six schools this year. Having well-defined and measurable objectives is important for all courses, not just core curriculum. As well, the project provides an important opportunity for local business volunteers who conduct the review sessions to become better acquainted with the program, thus expanding awareness and support of CTE throughout the business community.
  
7. **Support and encourage expanded CTE administrative efforts to increase the knowledge of our students, parents and school counselors** of opportunities available through the CTE program. Note that current budget and staffing constraints make this an ongoing challenge.

**CTEAC Meetings in 2005-2006**

During the 2005-06 school year, the CTEAC held eight regularly-scheduled business meetings. As is our norm, meetings were held at CTE program-related facilities, strengthening the connection between committee members and CTE students, instructors, and administrators across several CTE programs.

Facility	Location	Program Connection
<b>General</b>	Leis Administrative Center	CTE/CTEAC Orientation
<b>Program Site</b>	The FATE Home Building Site, McLean	The FATE program; tour of the completed home; construction industry speaker
<b>CTE Academies</b>	George C. Marshall High School Academy	Culinary Arts program preparation of reception food; combined meeting with CTE program-specific advisory boards
	Chantilly High School Academy	IT program faculty experience; industry speakers
<b>Middle Schools</b>	Carson Middle School	Students from the Business, Family, & Consumer Sciences
<b>High Schools</b>	Annandale High School	Culinary Arts program; restaurant industry speaker; kitchen tour
	Falls Church High School	HMS program; health care career and industry panel discussion
	Edison High School	Career Center Specialist

CTEAC members and CTE staff also participate in subcommittees in order to provide the opportunity for additional discussion on key matters of interest and concern to the CTE program. Active CTEAC subcommittees for 2005/2006 included the following:

- Business Volunteer Subcommittee,
- Goals and Accountability Subcommittee, and the
- Marketing Subcommittee.

## **Committee Charges & CTEAC Actions Over 2005-06:**

### **1. Promoting Understanding and Support of Career and Technical Education**

A critical role of the CTEAC is to “assist in promoting understanding and support of career and technical education within the business community and the public.” In this area, the Committee had three primary activities on which to report:

- (1) CTE Calendar.** The CTE Calendar was first created for the 2004-05 school year. Supported by a grant from the Foundation of Applied Technical Education (FATE), the calendar conveyed the diversity, excitement, and opportunity of a CTE educational experience through a series of profiles of current and previous CTE students. The FCPS CTE calendar was seen as a very successful marketing/education tool for CTE programs, winning statewide recognition and a Creating Excellence Award. The state supported the 2005-06 school year CTE calendar, and 14,000 were distributed to parents of high school freshmen, school staff, and various stakeholder groups within the community.
- (2) Business Volunteers.** CTEAC members have long been concerned that many business people with connections to the county have the desire and the resources to support CTE programs, but are unaware of specific opportunities to provide assistance. In the spring of 2005, the CTEAC created a new Business Volunteer Subcommittee with the mandate to find ways to develop and strengthen connections with the business community by identifying specific volunteer opportunities within the programs and classes and then helping match willing and qualified volunteers to these opportunities.

In October of 2005, CTE launched the VIP, or Volunteers Influencing Potential, website ([www.fcps.edu/DIS/OCTE/vip/](http://www.fcps.edu/DIS/OCTE/vip/)), an offshoot of the FCPS website portal. The VIP website identifies and describes opportunities for volunteers to assist CTE programs, and allows people across the county to register to receive e-mails highlighting volunteer opportunities, thus allowing registrants to select specific opportunities that fit their background and interests. As well, CTE program coordinators match registrants’ experience and interests to specific program and class needs.

The VIP website was well received by the CTE staff, who believe that this effort not only brings valuable resources to the programs, but may also result in local work opportunities for program students. To date, over 250 people have registered to be VIPs. For the 2006-07 school year, CTE staff will be reviewing additional ways to strengthen this tool for identifying and matching volunteer opportunities to our VIPs.

- (3) Connecting the Broader CTE Advisory Committee Community.** In October of 2005, the CTEAC sponsored our first-ever joint advisory meeting with our six program-specific advisory committees. The intent of this joint meeting was to make the connection for all committee members that each program is part of a greater CTE advisory community. The CTEAC used this meeting to roll out the CTE VIP website, and ensure committee members across all programs had the opportunity to both register as the first ‘wave’ of volunteers, and have the information needed to recruit other colleagues to register.

- (4) **A Closer Connection to the School Board.** CTEAC applauds the decision of the Board, as put forward in the January 2006 Revised Policy 1710.9 Citizen Advisory Committees, to strengthen ties between the Board and its advisory committees with the appointment of a Board member liaison. The Committee looks forward to this new relationship, and stands ready to receive and execute the Board's specific CTEAC charge to come in the 2006-07 school year.

## **2. Providing advice with the aim of maintaining and improving the effectiveness of CTE courses in providing students with occupational knowledge and skills valuable in preparing them for the workforce.**

CTEAC has traditionally heard from different CTE programs at each of our monthly meetings. This year, we expanded this portion of our meetings to include the voice of industry by inviting guest speakers to share their perspective on the business/industry areas that the programs have been developed to support. Invitations were extended to industry experts from the assigned CTE program area to be highlighted at our regular meetings. Having industry speakers allows Committee members the opportunity to hear directly from the groups that have a vested interest in the focus of the program being discussed, and brings to life the connection between CTE programs and the region's workforce needs that the programs have been created to fill. Industry area discussions that emerged as important ongoing topics with the committee include:

- **Information Technology (IT):** specifically discussing the impact of the FCPS gender enrollment imbalance. This discussion resulted in the Committee's memo to the School Board on April 27 2006 urging consideration of this topic given the critical role of information technology in the region's economy.
- **Health & Medical Sciences (HMS):** specifically discussing the outlook for occupational growth in this industry (projected to include 15 of the top 20 of the fastest growing occupations in terms of percentage growth), and the critical shortage of skilled workforce. CTEAC heard from CTE staff about plans for future CTE courses in this important career area.

## **3. Reviewing Program Needs and the Adequacy of Resources**

The CTEAC is also charged to assist the administration in determining needs of the community and the school division for courses in career and technical education, and advise the administration concerning the adequacy of resources being applied toward existing programs and initiatives. Key committee efforts to this charge are around course endorsements and the High Schools of the Future initiative.

- (1) **Course Endorsements.** CTE courses must be continuously evaluated, not only to gauge the current interests of our students, but also to determine if we are meeting the needs of our students, businesses and society as a whole. A summary of recent course endorsements and subsequent enrollment follows:

CTE Program Area	Course Endorsed	Enrollment by Year				Comments
		2003-04	2004-05	2005-06	2006-07	
Family & Consumer Sciences	Teacher Cadet	98	133	126	120	Part of Virginia's Teachers for Tomorrow program
HMS	Fire and Emergency Medical Sciences	--	20	19	29	Academy course
	Pharmacy Technician	--	--	--	71	Academy course
Technology Education	Technology Transfer	--	26	31	54	Addition of these courses ensured that all CTE courses have the elective sequence needed for a student to obtain a standard diploma
	Technology Assessment	--	--	8	18	Third year of course sequence
Marketing	Entrepreneurship	--	--	86	94	Academy course
Business & Information Technology	Network Administration II	--	--	26	28	Allows students to continue studying towards certifications
Trade & Industrial Education	Landscape Architecture & Turf Management	--	--	--	22	Academy course

**(2) High Schools of the Future Topic Endorsements.** In 2005-06, our Committee continued discussion about and promotion of the critical importance of resolving the challenges associated with transporting students and providing equitable program access to courses taught at specialized training sites. Our Committee has pointed out the many factors that contribute to this issue, including bus driver shortages; worsening traffic; differing high school bell schedules and decentralized control over these schedules; modified school calendars; equipment, instructor, and facility constraints; and other resource limitations. We have noted the large differences in school-by-school academy participation rates that correlate strongly with travel distance, and have pointed out that the average academy course is offered at less than three sites.

As such, we are pleased that the High Schools of the Future (HSOF) initiative is now underway, as we recognize that this initiative is the means by which these issues will be addressed. Our Committee strongly endorses this approach, and we are pleased to have representation in the way of our CTEAC Vice Chair on the HSOF Action Committee. As our assigned CTEAC representative, our Vice Chair will be able to present and discuss CTEAC issues and views, and will act as a liaison between the CTE and HSOF committees. We look forward to helping craft the HSOF model, and the opportunity to help resolve critical issues that it will impart.

#### 4. Correlating Services, Promoting Efficiencies, and Establishing Measurable Goals

In our charge to assist the administration in correlating programs in career and technical education with programs and services of other agencies, and assisting in the identification of long-range and measurable goals, we have had three main activities:

**(1) Student Survey.** In 2005-06 the CTEAC continued our practice of adding questions to a survey taken of CTE “completers” in preparation for a similar survey by the Commonwealth in the year after their graduation. (CTE completers are those students completing a sequence of CTE courses). We use the student input from the surveys to: (a) establish program goals; (b) assess the

effectiveness of the CTE programs and the quality of the equipment and materials being used from the students' perspective; and (c) obtain student feedback on other matters of interest to the Committee. Over the past two years, we have modified the survey to improve the clarity of questions asked,.

The survey results are limited in that the data collected by the survey is accurate only for the specific classes on which it was collected. Where marks for those classes appear out of the norm, CTE program coordinators review the data and work with the appropriate course instructors to better understand issues or perceptions and take action towards resolution.

Once again the survey feedback had a very positive tone.

- In terms of the future:
  - The majority of seniors surveyed (65%) plan to attend a college, university, or community college full time. In fact, fully half (50%) plan to attend a four-year college full time, while only 6% will be entering the workforce full time (including military). This suggests that the majority of CTE training is not for preparation for a career immediately after high school, but is more likely preparation for future preparation or familiarization with a future career area.
  - Almost a quarter of the respondents (23%) planned to work part-time and take some college or technical courses. Note that community college appears to be the choice for further training over technical schools, although we do not have data on the breakout of community college attenders planning to take traditional academic programs or pursuing technical studies.
- Once again the survey feedback with respect to instructor effectiveness, hands on exposure, and course material was very positive:
  - The vast majority of students who responded (80%) felt that their teachers were “Good” or “Excellent” instructors, and 85% felt the teachers spent enough ‘hands on’ time with them.
  - Less than 10% felt their materials, equipment, and lab facilities used were poor or in need of improvement.
  - 62% felt their CTE coursework makes their school experience more enjoyable.
- And, important data for the HSOF effort: 92% of the respondents took the course being rated at their base school. And importantly, when asked if they would have traveled to another school to take the course, one-half of the respondents said “No”, and almost another quarter of the respondents put a 15-or-30-minute parameter on amount of time they are willing to travel.

The CTEAC will continue to use these data and refine the survey to further evaluate CTE programs, establish measurable goals, and receive feedback on emerging issues. We recall the very vocal support that the School Board has for this survey, and would welcome for inclusion in this survey any questions of interest to the Board.

**(2) State Report Card** Every year, the Virginia Department of Education (VDOE) issues each local school division an Annual Performance Report (APR) for their CTE program. After reviewing this report for several years, and noting a number of concerns, the Committee decided to document our most pressing concerns including:

- The lack of reliability of the data produced: the survey methodology as it is presently administered is not scientific, and therefore suspect.

- The required response level (75%) that is quite difficult to reach with our transient student population, which makes this a very expensive and time-intensive instrument (especially with respect to our belief that the data is unreliable); and,
- The fact that many of the standards in the survey measure variables that are unrelated or very weakly related to the defined standard.

Having had no response from the Virginia Board of Education after a years' time, our committee contacted our School Board liaison, Mr. Daniel Storck. From Mr. Storck's involvement we learned that the memo had not yet been reviewed. Subsequently, the School Board received a response from VDOE in July 2006. The response was forwarded to CTEAC for review and response, which will occur early in our 2006-07 school year.

**(3) Exemplary Standards.** The Exemplary Standards program was designed to allow CTE teachers to assess their programs, share their program with a visiting review team, and develop a program improvement plan. It also provides the means for teachers to collaborate on their instruction and establish consistency in their curriculum and instructional approach. Building on the very positive feedback of the pilot program at Robinson Secondary School, the Exemplary Standards pilot was extended during the 2005-06 year to all CTE teachers in the five academies and Falls Church High School, and the CTE teachers at those high school sites housing the academies.

The Committee supports the program. As the program continues to grow, the staff will need additional Committee support in the recruitment of community members to conduct on-site reviews of each program.

### **2005-06 Summary**

The CTEAC continues to be impressed by, and proud of, the many accomplishments of our school system's CTE students and programs. Each interaction we have in our advisory capacity makes evident the commitment of these students toward preparing for a successful career, and of CTE staff to helping students achieve their dreams. The progress of our CTE program -- and students -- over the past year is evident in the growth and improvement on many fronts:

- Validation of course work through the almost doubling of the number of students receiving industry certification;
- Development of leadership, communication, and other key work skills through involvement in career and technical student organizations and competitive events, such as DECA, FBLA, and the U.S. FIRST Robotics competition;
- Utilization of the Exemplary Standards program to develop a continuous improvement model and accountability piece for all program; and,
- The closer ties to the business community through our program-specific advisory committees, business association relationships, and VIP business volunteer ensuring that CTE courses are on topic for needed skills, and so creating working opportunities for students.

### **2006-07 Outlook**

In the coming year, the CTEAC will continue to carry out our mission, giving particular attention to activities that will:

- Expand the depth and breadth of our marketing, communications, and outreach activities, for students, staff, parents, and other community stakeholders to ensure that there is effective communication about CTE opportunities.
- Support the High Schools of the Future initiative to ensure representation of CTE in this critical effort.
- Work closely with CTE staff to ensure students have the opportunity to explore, understand, and value the practical arts, in keeping with the Boards Strategic Goal 1.3.
- Move forward with the School Board's charge to the Committee, received in September: *Considering future trends and reviewing and making recommendations about the CTE models for the future, in keeping with the school Board's new Strategic Governance Initiative.*

In closing, the CTEAC commends the Board for your unwavering support of CTE programs in Fairfax County Public Schools. We encourage you to be proactive in requesting our assistance, and invite you to forward to the Committee any matters where we may be of assistance.

Respectfully,