



FY 2002 Information Report

Citizen Advisory Committee

Career, Technical, and Adult Education

April 2002

Who We Are

The Career, Technical, and Adult Education Citizen Advisory Committee assists the Office of Career, Technical, and Adult Education in reviewing and recommending improvements to existing programs and supporting the development of new course offerings in related areas to enhance the instructional program of Arlington Public Schools.

Chairperson—

David Hunn, Director, Northern Virginia Regional Partnership

Members—

Joyce Bissonette, Project Coordinator, CyberSeniors/CyberTeens, Virginia Cooperative Extension/4-H Program

Joyce Caldwell, Director, Arlington Employment Center

Michael J. Dobbs, Student, Yorktown High School

Charles Downs, Interim President, Northern Virginia Community College

Richard Doud, President, Arlington Chamber of Commerce

Judy Hadden, Citizen Member

Charles Harris, Associate Dean, Education and Human Services, Marymount University

Peter Joyce, Manager, Workforce Development, Worldwide Education, Cisco Systems, Inc.

Karen Panker, Senior Program Manager, Workforce Development, Information Technology Association of America (ITEA)

Nancy Vorona, Senior Industry Director, Advanced Materials and Electronics, Center for Innovative Technology

Ex-Officio Member—

Tom Smolinski, Retired Director, Arlington Career Center

Staff Liaison—

Michael R. Morton, Director, Career, Technical and Adult Education

- promote career and technical education programs to increase student preparation for the work world and post-secondary career preparation;
- increase student interaction with employers by fostering linkages between career and technical education programs and business/industry and government;
- maintain technical laboratories and classrooms that meet curricular guidelines, enhance program outcomes, and promote safe programs/operations;
- and foster collaboration between area post-secondary institutions, employers, and the Arlington Public Schools.

Career, Technical, and Adult Education is also responsible for recommending repairs and updates of equipment for exploratory and technical programs in the middle schools, high schools, and at the Career Center. This involves selecting and purchasing functional, safe, state-of-the-art equipment for Business and Information Technology, Marketing Education, Computer Science, Technology Education, Trade/Industrial Education, and Family and Consumer Sciences.

The following chart summarizes the broad numbers of students in grades 6-12 served through the various Arlington Public Schools' programs reviewed by the Citizen Advisory Committee and the enrollment growth between 1999 and 2001. In addition, all elementary school students in grades 3 or above receive keyboarding classes. Our elementary technology education pilot program, Children's Design and Engineering, is offered to all students (grades K-5) at the Arlington Science Focus School.

Course	1999-2000 Students Enrolled	2000-2001 Students Enrolled	Growth
Business / Marketing	2,741	3,503	21.8%
Technology Education	1,086	1,473	26.3%
Career Center	1,158	1,153	-.05%
Work & Family Studies	1,688	2,001	15.7%

Program and Departmental Overview

Career, Technical, and Adult Education (CTAE) works within the Department of Instruction of the Arlington Public Schools to provide programs of instruction in career and technical education to the school-age population. Moreover, the office also provides lifelong learning opportunities for adults of all ages in the Arlington community.

The philosophy of Career, Technical, and Adult Education is to link education and career skills for the creation of lifelong learning opportunities. The CTAE staff coordinates and provides educational services along a continuum that begins with awareness building, provides ongoing opportunities for the community to voice its needs, and provides access to educational programs that empower students to acquire the knowledge, attitudes and skills necessary to manage change and succeed in a diverse, technological society. Emphasis focuses on awareness building for middle school students and basic and advanced skills instruction for high school students and adults. Instructional opportunities are available to Arlington residents of all ages, educational backgrounds and abilities.

To address the strategic plan goals of rising student achievement, closing the achievement gap, and offering a rich, rigorous and relevant curriculum, CTAE programs:

The CTAE Adult Education personal and professional program increased enrollments 3.4 percent between the 2000 and 2001 school years, reaching a total of 5,414 adults in 2001. The combination of high quality, variety, accessibility, and affordability continues to attract students to courses.

- It should be noted that the fall 2001 session showed a less than 1 percent decrease in enrollments from the previous fall 2000. While it cannot be determined whether this leveling of enrollment is a result of the September 11th attacks, other Northern Virginia adult education programs have also reported a decrease in enrollments. The current winter 2002 session is showing an increase in enrollments when compared with the previous winter 2001 session. Registration will soon begin for the spring/summer 2002 session. Thirty-two new courses and 12 new instructors were added to this new catalog.

COMMUNITY TRENDS

Student Linkages with Job Market in Region

Career, Technical, and Adult Education programs facilitate the provision of instructional training in employability skills, and permit high school students to experience employment through cooperative education programs, internships, and other school-to-work programs. The CTAE programs are also working to develop stronger linkages with local higher education institutions and local employers to assure the most seamless transition possible to post-secondary education and the world of work. Through relationships developed with the Northern Virginia Regional Partnership (NVRP), the Northern Virginia Technology Council (NVTC), and local technology companies, Arlington Public Schools is recognized for its exemplary information technology programs and for the quality of student's technical skills and their workforce preparation.

Continued Importance of Skills Attainment

Skills attainment has become one of the most important factors in deciding a student's future success. In a knowledge-based economy, national data continues to show the market value of a high school diploma falling significantly. Unfortunately, too many students do not comprehend the requirements or urgency for raising their skills achievement to higher levels, including technical skills. The reality is that students must reach higher academic levels as reflected by Virginia's State Standards of Learning, be prepared for some post-secondary training, and engage in a lifetime of learning if they are to keep pace with the rapidly changing work and social environment. Arlington's Career and Technical Education program is well positioned to raise the achievement of a growing number of students who benefit from rigorous academic and technical skills taught within an applied context.

- In the Cisco Networking Academy course, students apply knowledge of binomial math in the technical skill of IP masking for Internet addresses.
- Students in the basic Technical Drawing classes are learning to use the latest AutoCAD software. Architectural engineering firms, surveyors, county government, and many construction subcontractors use this software. Students who go on to college and major in one of those fields will benefit from these courses. Arlington students in these classes can obtain articulated credit from Northern Virginia Community College. The *Occupational Outlook Handbook* (<http://www.bls.gov/oco/>) states that employment for drafters is expected to grow as fast as the average for all occupations through 2010. The greater use of CAD by drafters, architects and engineers should limit the demand for lesser-skilled drafters. Opportunity will be best for individuals who have at least two years of post-secondary training in a drafting program. Architects who have knowledge of CAD technology will have an advantage in obtaining an internship position after graduation.
- The new Automotive Youth Excellence Service program is in its first full year. Enrollment is up for next year, and there is an increase in the number of students interested in taking part in the summer and second year programs. The *Occupational Outlook Handbook* states the job outlook for employment in the automotive service area will increase about as fast as the average through the year 2010. Job opportunities are good for students who complete an automotive training program in high school or community college. The Arlington Public Schools' automotive program articulates with Northern Virginia Community College.

- Local Arlington businesses are recognizing that Arlington Public Schools is graduating a pool of knowledgeable and experienced Information Technology students. Arlington Public Schools' students have been invited to visit the CISCO facilities, have participated in the Groundhog Job Shadow Day and TechTalk student forums sponsored by the Northern Virginia Technology Council and are employed as interns by regional IT firms. The students are hired based on their career goals, interests, and level of IT experience.
- During the 2000-2001 academic year, 29 students were provided internship opportunities through the support of Arlington's Adult Education Program, local IT companies, and the Arlington Department of Human Resources (ADHR). Arlington Public Schools' Instructional Media Technology staff employed seven students. The remaining interns were employed by the following companies: FDIC, Verizon, George Washington University, NASA, SiteSafe, Vector Marketing, Wright & Company, Cable in the Classroom, and the Arlington County Government Department of Technology. The companies and the students benefited from these internships. Students assisted with web page design projects, database administration, computer hardware and software installation, computer system configurations, and network administration.

In addition to motivating and supporting students' academic learning, Arlington Public Schools' students are gaining relevant technical skills that will launch them on a viable and promising career pathway. More often than not, this pathway includes attainment of post-secondary education.

Continuing Demand for Adult Education English as a Second Language Services

Arlington County, as well as much of Northern Virginia, continues to experience a significant inflow of new arrivals of foreign-born adults and families. During the 1990's, Arlington County was the destination of over 21,000 new arrivals to the region. The chart below reflects data estimates based on U.S. Census data of immigration trends into the Northern Virginia region available from 1990-1998.

Table 6.1: GWMA Domestic and International Migration (1990-98)

	NET DOMESTIC MIGRATION ¹	NET INTERNATIONAL MIGRATION	TOTAL GROWTH
Alexandria	(15,309)	10,691	6,403
Arlington County	(32,564)	21,475	4,425
Fairfax County	(31,134)	66,974	128,475
Loudoun County	50,309	3,468	68,811
Prince William Co.	12,404	7,600	61,347
Stafford	21,817	498	30,464
Total	5,523	110,706	299,925

¹The Net Domestic Migration numbers are projections based on 1990 census data and subsequent sample data.

The Arlington Education and Employment Program (REEP) continues to experience a tremendous demand for adult English as a Second Language (ESL) services. The program has expanded services at its three primary locations: Clarendon Education Center, Arlington Mill Center and Kenmore Middle School. Among these locations, 10 morning classes are offered along with 46 late afternoon and evening classes. To date, a

total of 5,706 ESL enrollments have been provided through various funding sources and student fees; 3,941 have been County-funded. By June 30, 2002, REEP expects County-funded enrollments to increase to nearly 4,600.

In July 2001 REEP received a \$68,000 increase in County funding. That funding enabled the program to grow by 32 percent over the previous fiscal year. The funding also enabled REEP to provide an additional 200 scholarships over the previous fiscal year. Despite this growth, the program's waiting list has grown from an average of 93 students per cycle to 131 students per cycle. For the March 26, 2002 Clarendon cycle, 1,287 students were registered; 808 were enrolled, and 113 were placed on the waiting list for upcoming classes at REEP's other locations. Another 366 people either did not show up or walked out without getting on the waiting list. Much of these substantial student enrollment increases are attributed to the region's economic downturn, particularly since September 11, 2001 and the need for many foreign-born residents to expand and improve their English skills in order to remain competitive in the area's job market.

OVERVIEW OF COMMITTEE INITIATIVES AND ACCOMPLISHMENTS

Advocacy of FY 2003 Departmental Budget Priorities to ACI and Superintendent

During 2000 and 2001, the Citizen Advisory Committee advocated for several important budget items on behalf of the Office of Career, Technical, and Adult Education, for consideration in the FY 2003 budget process. Three budget items are highlighted below.

1. Budget funds to continue and expand the Summer Information Technology Internship Project initiated in summer 2000.

Twenty Arlington students from various APS technical classes worked for six weeks in the summer of 2001 assisting ITCs and other APS technical staff. A follow-up survey of the project revealed successful ratings by the high school students who participated, the APS staff mentors, and by responding principals from participating school locations. Both the school system and the individual students benefited from the internship. Students learned specific skills and industry work standards, while the school technical staff received assistance with routine tasks during peak summer work time.

2. Provide funding to complete Middle School Technology Education Modular Lab Initiative.

The modular lab pilot program has been successful in the three middle schools (Jefferson, Swanson and Williamsburg) that have been refitted. The modular labs allow students to experience cutting-edge technologies they normally do not see in the R&D labs. The Citizen Advisory Committee supports funding for a new modular lab at Gunston. The lab at Kenmore should be included in the construction of the new school.

3. Budget funds to continue the Technology Education Elementary Children's Design and Engineering pilot program at Arlington Science Focus.

In the Technology Education's Design and Engineering program, students become designers and developers and use higher order thinking skills to solve technological problems. Students incorporate math, science, history, and language arts as they learn

how to identify the problem, brainstorm, develop a solution, build a model, and test and analyze the product.

Establishment of Non-Profit Student Corporation

The Citizen Advisory Committee has worked closely with CTAE staff and Arlington School administrators in establishing a foundation to improve the quality of education in Arlington Public Schools. The name of the corporation will be the Arlington Student Enterprise Corporation. The foundation will function exclusively as a 501 (c)(3) non-profit organization according to the Internal Revenue Code of 1986, solely for educational purposes. Members of the Citizen Advisory Committee may also participate in an advisory role to the new non-profit corporation. It is expected that the corporation will:

- promote and advance education and career opportunities for students;
- provide students with applicable work experience through internships and mentoring; promote high school Information Technology (IT) programs to industry and governmental agencies;
- provide scholarships for post-secondary education;
- provide resources to support student organizations;
- develop student leadership by supporting student organizations; promote and sponsor student entrepreneurial businesses;
- support technology initiatives to provide innovative technology for students;
- develop a forum to bridge Career, Technical, and Adult Education with the community;
- expand Career, Technical, and Adult Education programs to be more responsive to the needs of business, industry, students, and the community; and
- establish greater collaboration between schools, businesses, and the community to inspire student community involvement through civic activities.

Staff will present information on the proposed foundation, along with the Articles of Incorporation and the Bylaws, to the School Board for review and approval in spring 2002. Once approved, the foundation is expected to be underway by summer 2002.

Advocacy for Portable Computer Loan Program to Students

The Citizen Advisory Committee has closely monitored educational trends in other regions and states relating to new and innovative ways to utilize technology, the Internet and personal computers to enhance student learning and achievement. For example, in 2000, the State of Maine implemented a new educational policy to purchase and distribute a portable computer to every seventh grade student entering middle school throughout the State. The Committee has worked closely with CTAE officials to determine an appropriate and applicable policy for students in Arlington County. Through very innovative applications and procedures, Arlington Public Schools' staff has initiated a pilot project called Laptops for Loan at APS high schools, which makes up to 73 portable computers available for checkout on evenings and weekends by students at Arlington's high schools. The portable computers come with applications and security software and even have an America Online account. This pilot project has been underway since November 2001 and will be closely evaluated following the completion of the 2001-2002 school year. The initial data on computer utilization and circulation are showing heavy use, particularly at Wakefield High School. To date, students are reporting this project as a success and note they can complete homework and projects on time and can present assignments in the required format.

Establishing On-line Registration Options for CTAE Adult Education Programs

The Citizen Advisory Committee has encouraged CTAE management to expand Adult Education program enrollment and payment options to include utilization of the Internet. While the current Adult Education catalog has been available to students in PDF format from the Arlington Public Schools' web page (www.arlington.k12.va.us/departments/adulted/ppc.html) since November 2001, adult students interested in enrolling in programs must continue to utilize walk-in, mail-in and fax-in registration processes. Web server statistics show a growing number of visits to the site:

- during January 2002 (first month of winter session), there were over 11,000 requests for pages from the Adult Education web site;
- there were 14,153 requests to view the winter 2002 catalog;
- there were 701 requests to view the new spring 2002 catalog in the two-week period after being placed on-line.

For more than eight years, the Adult Education program has been using ACEware Student Manager software to register students in Adult Education courses:

- approximately 5,400 enrollments in 675 courses each year;
- creates reports and forms such as class lists, certificates and transcripts;
- instant access to student records, enrollment and accounting reports;
- Student Manager software resides on the Clarendon server with multiple users in the registration office.

As more people are shopping and enrolling in classes through the Internet, CTAE managers anticipate that student enrollment will increase once students can enroll from their home or office computer. Moreover, the process for enrollment and the ease of the payment transaction will be much easier and simple for the customer.

Approval to conduct on-line adult student registration through the Arlington Public Schools' web page has been requested through the APS Technology Steering Committee. Unfortunately, as of April 2002, this request has been placed on hold, as the school system is currently not prepared to allow outside access to the internal computer services for the system. APS staff is studying this issue.

Arlington Public Schools Senior Staff

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COMMITTEE COMMENTS

The Citizen Advisory Committee for Career, Technical, and Adult Education believes that the programs and services offered through the Office of Career, Technical, and Adult Education provide an outstanding resource and are of excellent value for students of all ages in Arlington County. The sheer variety of programs offered through CTAE are unique in reaching the multifaceted adult population of Arlington in addition to offering specific career exposure and career training opportunities for many elementary and secondary students throughout the Arlington Public Schools.

Nevertheless, the Citizen Advisory Committee would offer several comments for consideration by members of the Advisory Committee on Instruction, ourselves, and for the School Board members.

- The Committee is concerned about the ongoing availability of career education electives, which includes Business and Information Technology, Marketing Education, Computer Science, Technology Education, Trade/Industrial Education, and Family and Consumer Sciences. With increased student enrollment and space at a premium, school principals have to make hard choices on electives. The Committee feels that the Career and Technical Office, in conjunction with the Division of Instruction and Student Services, should develop a cohesive structure for offering and supporting Career and Technical courses that provide career exploration, industry certification, licensure, and/or college credit.
- The Committee encourages the development of ongoing linkages between education and the workplace. These linkages can take a variety of forms, but are intended to provide support for students interested in exploring various career options or to gain valuable work experience in specific disciplines as they continue their education. The role of student internships (whether paid or voluntary) remains a key initiative in connecting students with the real-life work situations and responsibilities.
- The Committee encourages Arlington Public Schools to continue to emphasize and reflect the variety of options available for individual success and preparation for post-secondary education and career options in all programs and materials prepared for transitioning and graduating students.
- The Committee recognizes that developing and fostering technical skills among all students must continue to be emphasized throughout the entire system. Moreover, the use of technology in providing stimulating and provocative educational experiences in a variety of settings will continue to evolve and become more sophisticated, challenging professional school staff and School Board members alike.
- The Committee encourages the Arlington Public Schools to explore possible options to provide for on-line Internet registration and payment opportunities for all Adult Education classes offered through the CTAE office at the earliest possible date.