MARYLAND STATE DEPARTMENT OF EDUCATION
Preparing World-Class Students

Bernard J. Sadusky, Ed.D.
Interim State Superintendent of Schools

200 West Baltimore Street • Baltimore, MD 21201 • 410-767-0100 • 410-333-6442 TTY/TDD • MarylandPublicSchools.org

TO: Members of the State Board of Education

FROM: Bernard J. Sadusky, Ed.D.

DATE: October 25, 2011

SUBJECT: Career Readiness

PURPOSE:

The purpose of this item is to provide information about Career Readiness in response to your request.

BACKGROUND:

Ensuring that students are prepared for college and careers is a major focus of policy discussions at national, state, and local levels. As these discussions ensue and decisions are reached, the requirements for college and career readiness are being perceived as synonymous.

EXECUTIVE SUMMARY:

The attached report provides background information for a discussion of career readiness.

ACTION:

No action required, for discussion only.

BJS:kmo

Attachment

Career Readiness

This report provides background information in preparation for an expanded discussion at the October 25, 2011 meeting of the State Board of Education.

Is there a national career readiness agenda?

Achieve, ACT, the National Governor's Association (NGA), the Southern Regional Education Board (SREB), and numerous other national organizations are placing a priority on both college and career readiness. These groups often equate college readiness with career readiness. College readiness is typically defined as "the level of achievement a student needs to be ready to enroll in and succeed – without remediation – in credit-bearing first-year postsecondary courses" (two-year and four year institutions, trade and technical schools). ACT defines career readiness "as pertaining to jobs that (1) require at least a high school diploma, (2) pay a salary above the poverty line for a family of four, (3) provide the potential for career advancement, and (4) are projected to grow in the next five to ten years." The latter definition is harder to quantify and measure.

Achieve, and many others suggest that in today's knowledge economy a career is just not a job. A career is generally considered to provide a family-sustaining wage and pathways to advancement, whereas a job is work that may be obtained with only a high school diploma but not offering a guarantee of advancement . Career advancement, in almost every instance, requires postsecondary education/job training and preparation that values the same level of academic knowledge and skills as college readiness.

Help Wanted: Projections of Jobs and Education Requirements through 2018 from Georgetown University's Center on Education and the Workforce supports this notion of the rapidly converging expectations for college and career. The report indicates that shift to higher entry level requirements will continue. In fact, by 2018, 63% of all jobs will require some postsecondary education.

The American Youth Policy Forum (AYPF) expands on ACT's and Achieve's definition of college and career ready by including the notion of obtaining a postsecondary industry certification without the need for remediation. AYPF also includes having the academic skills and self-motivation necessary to persist and progress in postsecondary education, having identified career goals, and having the cultural knowledge to understand the expectations of the college environment and labor market as also necessary for career readiness.

While agreement seems to be emerging that college readiness implies the ability to be successful in entry level collegiate course work without the need for remediation, not much attention is being paid to the notion of career readiness. The Association for Career and Technical Education (ACTE) suggests that the terms "career ready" and "college ready" are, all too often, used interchangeably. They assert that "while there is no debate that a rigorous level of academic proficiency, especially in math and literacy, is essential for any post-high school endeavor, the reality is that it takes much more to be truly ready for a career." ACTE underscores students' need to be able to apply academic skills in context and to possess employability skills that include adaptability/flexibility and critical thinking/problem solving. Finally,

while many career opportunities include a strong element of on-the-job training some of these technical skills must be obtained in advance of entry into the labor market.

Education Week's *Quality Counts* annually reports on state efforts that promote career readiness. According to an Educational Testing Service (ETS) review of Quality Counts 2011:

- 33 states have defined workforce readiness;
- 38 states offer a standard high school diploma with career specialization;
- 42 states offer pathways leading to industry recognized certificates or licenses;
- 48 states offer pathways to earn credits to transfer to the postsecondary system; and,
- 24 states (including Maryland) have implemented all of the above policies.

How is Maryland responding?

Maryland's P-20 College Success Task Force was charged by Governor O'Malley to examine current Maryland policies and practices related to the alignment of public secondary and postsecondary expectations, standards and student learning outcomes. It defined a college ready student as having the following characteristics:

- Prepared to succeed in credit-bearing introductory general education college courses or in an industry certification program without needing remediation;
- Competent in the *Skills for Success*, which are a component of the Core Learning Goals identified in the late 1990s by the Maryland Business Roundtable for Education and educators as identifying skills for workplace readiness; these skills include learning skills, thinking skills, communication skills, technology skills, and interpersonal skills. While the particular technologies that students need will change, the general skills remain the same. Skills for Success is a Maryland model that resembles significant portions of the more recently developed Partnership for 21st Century Skills, which also includes these skill sets to prepare students to work in a diverse, innovation-driven economy;
- Has identified career goals and understands the steps to achieve them; and
- Mature enough and skilled enough in communication to seek assistance as needed, including student financial assistance.

What does MSDE mean by career readiness? Is there a connection to the college ready agenda?

MSDE's school reform agenda has also included major changes in career and technology education (CTE). The Department's Division of Career and College Readiness (DCCR) created a new model of career and technology education that prepares students for both employment and further education. Rapid changes in the global economy provided the impetus for the establishment of Maryland CTE Programs of Study, which include both sequential technical and academic coursework guided by industry standards. Completion of the prescribed program can result in students earning early college credit and industry certifications, both clear indicators of being college and career ready.
In order to graduate with a Maryland high school diploma, students must select from one of three pathway options: two credits of a foreign language, CTE program completion, or two credits of

Advanced Technology Education. Students completing the foreign language requirements and the University of Maryland (USM) course entry requirements are deemed as USM completers; those completing an approved CTE Program of Study are considered CTE completers/career ready; and, those who have completed both sets of requirements are noted as dual completers, i.e. prepared for college and career.

In response to an evolving and more global economy, as well as changes in employers' expectations, MSDE established a system of career development aligned to Maryland's career cluster framework. Academic and career plans are required for every student beginning in the eighth grade and school systems are required to implement a standards based program of career development for every student beginning in the elementary years

As noted above, Maryland's *Skills for Success* identified five overarching skills needed for success in college and careers. Each skill represents a standard of learning. Indicators of learning, objectives and their elaborations provide Local School Systems (LSSs) and schools with the structure to integrate development of student competency in these areas into all curriculum content. No implementation mandate currently exists.

How are the Local School Systems responding to the Career Readiness agenda? What is relationship between local offerings and the employment market?

Local school systems are responding by adopting State CTE programs of study, implementing technical assessments leading to industry-recognized credentials, participating in state-led professional development, and using data-driven decision-making to ensure accountability and continuous improvement of CTE programs.

CTE Programs of Study are developed in cooperation with the broader business community, higher education, and other stakeholders in response to labor market demands (in order to meet the economic and workforce development needs of the state). Local school systems are adopting CTE State Programs of Study to modernize and improve programs and/or eliminating outdated programs that no longer meet labor market needs. In 2011, nearly 50% of CTE student enrollment was in a State Program of Study. Examples include Pre-engineering, Biomedical Sciences, IT- Networking, and Interactive Media Production.

An industry-led Program Advisory Committee (PAC) with input from postsecondary educators conducts a needs analysis to review the cluster, pathways, and CTE programs under consideration. The PAC reviews labor market information at local, state, and in some instances, regional levels to determine whether there is a demand (or lack of demand) for employees in the industry. Articulation agreements with post-secondary partners are considered in the earliest stages of the CTE program development process.

What data exists, and what is it telling the department?

High school student participation in CTE programs includes three measures -- CTE enrollments, CTE concentrators, and CTE Completers. Since 2007, **CTE enrollment** – the total number of students enrolled in any CTE course -- has ***remained stable***, between 119,865 to 117,341 students. Students may elect to take a CTE course any time throughout their high school experience. During the school year, approximately, 43% of all high school students take at least one CTE course.

	2007	2008	2009	2010	2011
CTE Enrollment	119,865	128,582	107,615	111,380	117,341
All Students 9-12	272,575	280,202	267,388	275,433	272,626
% CTE – All Enrollment	44.0%	45.9%	40.2%	40.4%	43.0%

CTE concentrators are those students who have taken at least three (3) CTE credits in a program or have advanced to the upper-level courses in the CTE Program of Study. The number of students who have taken upper-level CTE courses and are designated a **CTE concentrator** by the senior year, has ***increased slightly***, with approximately 42% of the graduating class having the benefit of upper-level CTE courses.

	2007	2008	2009	2010	2011
CTE Concentrators	22,802	20,836	21,456	24,161	24,466
Total HS Graduates	57,564	59,171	58,304	59,078	58,753
% Concentrators – HS Graduates	39.6%	35.2%	36.8%	40.9%	41.6%

As one of three options for meeting graduation requirements, students who complete the full CTE program sequence are designated a **CTE completer**. The number of students designated a CTE completer on the High School Status and Completion (HSSC) file ***shows a decline from 2007, with a slight increase from 2010.*** While the high school completion rate of CTE concentrators is 96.8%, fewer students are designated as a CTE completer at the time of graduation.

	2007	2008	2009	2010	2011*
Total CTE Grads (HSSC)	15,040	12,676	11,786	11,404	
Total HS Graduates	57,564	59,171	58,304	59,078	
% CTE – HS Graduates	26.1%	21.4%	20.2%	19.3%	

* Not available for 2011

Three factors contribute to the overall decline in the number of **CTE completers**. The first is an inconsistency in data collection and reporting in the HSSC file. Based on limited analysis of Local School System data, there may be significant under-reporting of the CTE completer designation. MSDE is working to incorporate CTE course and program designation as part of the Maryland Longitudinal Data System (LDS) to ensure greater integrity of this information.

Second, in the senior year students may elect to take AP, obtain early release for work, or leave their high school for coursework at a college, rather than completing the fourth course in a CTE program. Encouraging more students to continue pursuing a rigorous program of study in the senior year has the potential to strengthen college and career preparedness.

Third, several LSS have eliminated CTE courses and some CTE program options as they realign high school programs across the district. For example, Anne Arundel County and Prince George's County Public Schools have reduced course offerings in Business, Management and Finance in response to decreasing resources. Due to recent budget reductions, several LSS have also eliminated central office support for CTE. In many cases, CTE director functions have been moved to the responsibilities of principals, assistant principals, or central office staff with numerous other curricula areas to oversee.

What is the future direction? What are the opportunities and challenges?

William Symmonds, a director of Harvard's Pathways to Prosperity Project suggests that it is a great disservice to suggest that readiness for college equates with readiness for work. The Project further contends that we have placed too much emphasis on college as the single pathway to success, especially since only 30 percent of young adults actually complete this pathway. To address this, the group recommends that every high school graduate should find viable ways of pursuing both a career and a meaningful post-secondary degree or credential.

A first step in this process would be to ensure that students, parents, guidance counselors, and school administrators understand the pathways to careers and the course-taking patterns and experiences that would be the best preparation. Full local implementation of a robust system of career development is needed. Maryland's Career Development and Career Cluster Frameworks, along with a requirement that every eighth grader develop an aligned academic/career plan, provide the infrastructure for such an enhancement.

An important second step is expanded support for student participation in and completion of a focused program of study to enhance all students' career readiness. An example of this is a rigorous CTE Program of Study that results in postsecondary and workplace success upon high school graduation. Students in the 11th and 12th grades are challenged by a wide array of choices that may or may not support readiness for postsecondary coursework and entry into a career pathway upon exit from high school. Increased emphasis on earning early college credit and greater access to industry certifications through CTE, career academies, or other focused programs of study would help students, parents, and school administrators appreciate the role of the high school experience in preparing students to be career ready.

Third, relevant work experience and mentoring while in high school would also contribute to student readiness for careers. Maryland CTE Programs of Study include work-based learning as an integral component, whether it is an internship, a project mentored by an employer, or a school-based enterprise. Similarly, the P-20 Council's STEM Task Force recommended STEM internships as a means of exposing students to careers in this fast growing segment of the Maryland economy.

Fourth, implementation of the Common Core State Standards provides the opportunity to more fully and specifically integrate Maryland *Skills For Success* into instruction throughout the learning levels. Employers seek employees who are lifelong learners, effective communicators, critical thinkers, technologically literate, and able to function effectively as members of teams. An overemphasis on content without context can leave students unable to apply what they learn in real-world settings. Employers ask in interviews, "What can you do?" – not just - "What do you know?"

Sources Cited in this Report:

ACT's College Readiness System: Meeting the Challenge of a Changing World. ACT, Inc, 2008. http://www.act.org/research/policymakers/pdf/crs.pdf

Degrees for What Jobs? Raising Expectations for Universities and Colleges in a Global Economy. National Governors Association, March 2011. http://www.nga.org/files/live/sites/NGA/files/pdf/1103DEGREESJOBS.PDF

The Mission of Public High Schools. Educational Testing Service (ETS) http://www.ets.org/Media/Research/pdf/PIC-MISSION.pdf

Help *Wanted: Projections of Jobs and Education Requirements through 2018*. Georgetown University's Center on Education and the Workforce, June 2010. http://cew.georgetown.edu/jobs2018/

Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century. Harvard's Graduate School of Education, February 2011. http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperity_Feb2011.pdf

Ready to Succeed: All Students Prepared for College and Work. ACT, Inc., 2006. http://www.act.org/research/policymakers/pdf/ready_to_succeed.pdf

What is "Career Ready"? Association for Career and Technical Education http://www.acteonline.org/uploadedFiles/Publications_and_Online_Media/files/Career_Readiness_Paper.pdf