

### By Amie Bloomfield, John Foster, Carol Hodes, Patrick Konopnicki and Sandra Pritz

ecent studies reported by the U.S. Department of Education reveal that over one million American students drop out of high school annually. While students have different reasons for dropping out of school, two leading factors include lack of interest and lack of educational support. When teachers are prepared to teach and do it using an engaging, meaningful and contextual method, the chances of retaining students, particularly those who are at-risk, has a greater chance of increasing. A key part of a teacher's preparedness relates to the tools available to assist in instructional delivery and analyzing results for individual and program improvement.

### **Keeping Kids in School**

Heckman and LaFontaine state that the high school graduation rate is "a barometer of the health of American society and the skill level of its future workforce." Researchers like Russell Rumberger cite growing numbers of dropouts, with the causes of the dropping outs being varied and subjected to much recent research. Jordan et al. find two main predictive factors to be family characteristics (e.g., the presence of both biological parents and the family's assets) and peer influences. J

Paola Nogeura's research on minority youth has found that characteristics of schools with higher graduation rates are having a strong positive relationship between teachers and students, personalized learning experiences, mentoring and counseling, plus other support to deal with problems that arise.<sup>4</sup> These are attributes that the majority of career and

technical education (CTE) programs and schools manifest on a daily basis. Because students' work is based on competency-based technical profiles, the learning is personalized and typically creates a closer relationship with an adult mentor (the student's teacher) than in a regular classroom setting.

Plank et al. mention the benefit of matching the student's skills and interests and blending the academic and career technical curricula to keep students engaged in school.<sup>5</sup> In their longitudinal study of six high schools, the main finding of researchers Castellano et al. was that the odds of dropping out declined with an increased proportion of CTE courses in high school.<sup>6</sup>

### Virginia Beach City Public Schools

Virginia Beach City Public Schools (VBCPS) is the largest school system in southeastern Virginia, serving over 69,000 students in grades K–12. The school system serves a diverse population as shown in Table 1.

The VBCPS system can be viewed as a microcosm of the nation as a whole. For the last 18 years, VBCPS has successfully impacted the dropout rate by employing several common and effective strategies of successful CTE. One of these strategies is a focus on obtaining an industry credential. Generally speaking, obtaining an industry credential adds a common, tangible goal that students, parents, teachers and administrators can collectively embrace.

## **Industry-recognized Credentials**

In a study of industry-recognized credentials in high school, Castellano

et al. were cautious about ascribing an important role to the credentials, but mainly because few students in their study seemed to be aware of the opportunities. They state that those who were pursuing certifications seemed to have a deep understanding of their career direction and how to achieve their goals, which suggests that such opportunities related to CTE programs can keep students engaged in school. It was noted that opportunities to gain certifications bring "real-world" standards and expectations, along with workplace-level technical skill instruction, to the high school.7 This corresponds to the finding in the 2006 Gates Foundation Report which indicates that when interviewed, 81 percent of dropouts said there should be more opportunities for "real-world" learning so that students can see the connection between school and getting a job.8 As shown in the next section, the focus in VBCPS has been to employ strategies that heighten students' engagement by linking real-world instruction to credentials, and making them fully aware of the opportunities that credentials represent.

A 2012 series of reports on student motivation from the Center on Education Policy found four dimensions of motivation: competence, control/autonomy, interest/value and relatedness. The interplay of these dimensions may result in the extrinsic motivation of certifications, a desire to achieve because it will produce a certain result.<sup>9</sup>

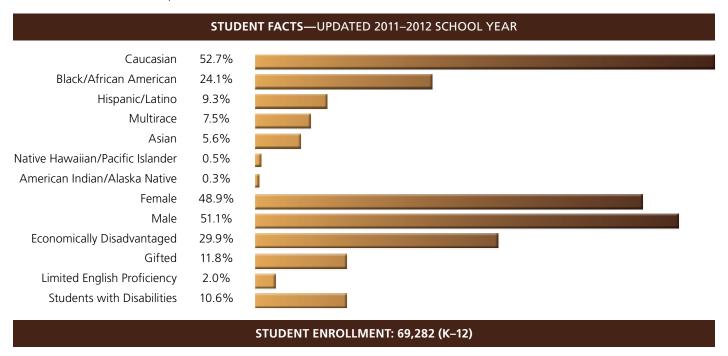
### **Establishing a Culture of Success**

As recent research suggests, the pursuit of common goals (e.g., credentials) is a strategy for dropout prevention—a

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# **At-risk Students**

**Table 1:** VBCPS Student Population Statistics<sup>10</sup>



strategy that VBCPS uses effectively. From a big picture standpoint, VBCPS uses an annual 21st-Century Industry Credentials Report prepared by the Office of Technical and Career Education that places great importance on students having the opportunity to take one or more industry credentials related to their program of study. Results from the annual report are shared with each of the 13 school principals in individual meetings, and copies of the report are provided to CTE program leaders. Principals meet with CTE program leaders to review the results and chart a course for continuous improvement. These CTE meetings result in established goals which are often incorporated into the school's plan for continuous improvement. The yearly CTE credentialing data is also shared with CTE teachers during mandatory summer professional development. In 2012, for example, the focus was on workplace reading and writing scores as they correlated to an individual school's literacy plans.

Recognizing the value of student credentialing is an initiative now shared

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by all secondary administrators, guidance personnel, CTE teachers and students, since as of 2013, all standard diploma students will be required to earn an industry credential. The list of approved credentials is included on a comprehensive list published by the Commonwealth of Virginia. The list includes credentials like Virginia's state licensures, industry association credentials like the American Culinary Federation or the National Home Builder's Association, and a large variety of NOCTI credentials which are vetted by industry experts from across the country.

Each high school is required to include all Virginia-approved credentials passed by students on the school's report card. This gives transparency to the number of CTE student credentials earned so that teachers, parents and the community become more aware of the CTE program rigor. For added visibility, the city's Department of Economic Development sends congratulatory letters to all students who obtain the Virginia Workplace Readiness credential. Last year, 2,173 students

earned that credential and received a letter from the city. In addition, VBCPS has achieved a CTE credentialing culture of achievement. Since 2001, 31,284 credentials have been earned by CTE students in VBCPS. Last year, the school district celebrated a milestone credentialing event highlighted by video remarks from Senator Mark Warner (D-VA).

### **Putting the Data to Work**

VBCPS uses many NOCTI technical skills assessments, which are effective tools for promoting instructional improvement and individualizing learning. The NOCTI score reports provide more than simple scores for student grades. These assessments are aligned to national standards—industry standards, state standards, academic and/or standards from a professional credentialing organization. The NOCTI tests produce reports that are granular, meaning that they include subpart scores for major categories within the occupation (e.g., construction categories might include safety, blueprint reading, hand tools, power tools, wall

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## At-risk Students

layout, roof layout, foundations, interior trim). Categories are weighted within the assessment according to importance in the occupation as determined by subject matter experts. Scores from each area can be used to determine a student's (or results from an entire class) strengths and weaknesses. Achievement gaps are revealed by a comparison with standards and with comparable data at the class, school, state and national levels.

Data from pretests can be used as a basis for an action-planning process that is designed to point in the direction of instructional improvements to benefit the whole group and/or individual students, helping them to achieve the credentials sought, thus helping the student stay focused and motivated. VBCPS also use

# What the Data Says

VBCPS's focus on data allows them to:

- Focus on the common denominator of improving learning through teamwork.
- Build school and department data teams and online networks.
- Review annual assessment data with a faculty team to isolate achievement gaps or groups of students with high and low performances.
- Analyze the previous year's goals, comparing against local unit tests and end-of-course tests at the student and classroom levels.
- Find relationships between test data, attendance and discipline referrals to constantly focus on keeping students motivated and engaged.
- Set both annual and longterm goals.
- Discuss and develop strategies, such as curricular alignment with academic and industry standards, curricular sequence, timing and depth of instruction.
- Use media networking for collaborative reflection.

pretest data that shows results of what already has been taught and what prior knowledge the students have in areas not yet taught. When these data are coupled with post-test data at the end of the year, valuable program-level information can be gleaned and used for planning purposes.

David Swanger, director of the Virginia Beach Technical and Career Education Center, commented on the performance of his students: "The Virginia Beach Technical and Career Education Center lives its mission of preparing students for quality career employment and lifelong learning. The single most important endeavor at the Tech Center—beyond competency and skill attainment—is providing students the opportunity to earn an industry credential associated with their field of study." He continues, "Every Tech Center student, regardless of instructional setting or academic ability, is afforded the opportunity to sit for some type of industry credential. In many cases, students who struggle in the comprehensive high school setting flourish at the Tech Center because they see and understand the real-world relevance of learning a skill and earning a credential."

VBCPS is very proud of its retention strategy; the accolades and recognition they have achieved within their state is remarkable. Their focus on implementing strategies that combine a desire for student success with other strategies (e.g., assessment, mentoring, creating a positive culture) is also noteworthy. Most important, however, is the effectiveness these strategies have had on keeping students in school and getting all students to focus on a very important target—their careers.

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- Table taken from Virginia Beach City Public Schools website, www.vbschools.com/root/ aboutUs.asp.



You can learn more about the role CTE plays in keeping kids in school with "CTE's Role in Dropout Prevention and Recovery," available for download at www.acteonline.org/issuebriefs.