Preparing All Students
(All Means All)
for a Rapidly Changing World

The world we live in and that our students will inherit is now facing massive challenges and revolutionary changes. Technological developments accelerate change at dizzying rates. The one-word description of this revolution is “globalization.”

Globalization means that an economic crisis in the United States or Southeast Asia has worldwide implications. It also redefines the world of work in terms of workforce competitiveness, while opening opportunities for innovation and cross-cultural connection. As President Barack Obama observed in a recent speech on education, “A child born in Dallas is now competing with a child born in New Delhi.”

All of this has enormous implications for K–12 education in the United States. Our children and young people—all of them, regardless of race, class, language of origin, ability, or disability—need to be prepared for success in a world that does not now fully exist.

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One thing we do know about the world our young people will create and inhabit is that the ability to adapt to ever-accelerating changes will be essential to success. Yes, students need to master content, but they also need to learn how to learn.

What is required to prepare all children and young people for this kind of world? Are schools and school systems that are still doing what most schools and school systems did in the last decades of the 20th century providing the kind of education that is called for now?

Clearly the present system of standard setting and testing is not well aligned to what is required in a 21st century world. As a nation, we continue to accept the reality of wide variations in core curriculum content standards and to permit high-stakes tests that don’t measure what matters most for success in a global marketplace. For example, how often are students assessed on their ability to work with peers in developing creative solutions to complex problems? In the same education speech quoted above, President Obama noted that eight of our states have set standards so low that they’re essentially on par with the lowest 40 percent of students around the globe.

We have once again been shown that state and federal approaches to accountability and high-stakes testing as currently implemented have not dramatically improved student outcomes. For many schools, the consequences of failure to achieve adequate yearly progress have increased the external pressure for improvement. On continued on page 2
A number of districts are blazing the trail to the creation of educational systems in which children from all circumstances are learning what will be needed to thrive in a globalized environment.

owned by state and federal officials but not local educators and leaders—have generally not increased the capacity of educators on the front lines to deliver a 21st century education to all students, nor have results improved for all learners.

Where will the needed change come from? Will the change be driven by a new version of No Child Left Behind? Will it begin locally and spread nationally? If so, what incentives and strategies will be employed to encourage the spreading?

In This Issue
Are some school systems adapting to the rapidly changing dynamics of the world that awaits our students? The good news is that the last question can be answered in the affirmative. A number of districts are blazing the trail to the creation of educational systems in which children from all circumstances are learning what will be needed to thrive in a globalized environment.

Two districts that are on the trail and beginning to demonstrate results—Pueblo District 60 in Colorado and Baltimore County Public Schools in Maryland—are featured in the pages that follow. This issue of Strategies investigates these districts’ strategic efforts to successfully prepare students for the brave new world of the 21st century and to do so in ways that intentionally and indisputably increase equity by diminishing gaps between students according to race, class, and other factors.

The forward-thinking districts featured in this issue rely on research and best practices in education, knowledge of how to build capacity in various fields and disciplines, and use of continuous-improvement designs to promote effectiveness. Leaders in both settings demonstrate a keen aptitude for connecting theory and practice in ways that respond to the local context of their respective districts. The commitment of leaders at all levels of both systems is deep and widespread. The will to change and the investment in skill development needed to drive systemwide innovations are apparent in locally crafted structures to promote the professional growth of people and to advance accountability for results. These districts demonstrate that local context always matters and solutions must be tailored to meet the needs of students regardless of their circumstances.

We encourage you to plunge into the bracing waters of change exhibited in the following stories of systemic educational improvement. And, as always, we invite you to let us know what you think.

—Larry Leverett, Executive Editor
—Scott Thompson, Editor

About the PANASONIC FOUNDATION

The Panasonic Foundation was established in 1984 by the Panasonic Corporation of North America. It works in long-term partnership with a select number of school districts that serve a large proportion of children in poverty to help them develop the system-level policies, practices, and structures necessary to improve achievement for ALL students: All Means All.

About the AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS

The mission of the American Association of School Administrators, the organization of school system leaders, is to support and develop effective school system leaders who are dedicated to the highest quality public education for all children.

About the UNIVERSITY COUNCIL FOR EDUCATIONAL ADMINISTRATION

The University Council for Educational Administration is a consortium of higher-education institutions committed to advancing the preparation and practice of educational leaders for the benefit of schools and children.
Moving Toward International Standards of Success for All

In Pueblo City Schools the graduation rate has improved over the past two years. In fact, the district has closed the gap between Hispanic and white students. The rate of Hispanic students graduating is 11 points higher than for “all” students and 2 points higher than for whites. When asked about hitting a mark that preoccupies so many urban districts, Superintendent John Covington is neither impressed nor complacent. “I don’t mean to belittle the gains we have made, but closing the gap is not getting our kids where they need to be. Our vision is far beyond merely closing the gap.”

Pueblo is focused on an international vision for students. Colorado state content standards are ranked 38th out of 50 in terms of rigor; and according to Covington, “it is not enough to be proficient on Colorado state standards. Our students are called upon to compete with graduates from states with higher standards than our own and with graduates from countries like China, Singapore, and Japan.” The district is taking bold steps to make sure that when graduates receive their diplomas, they can compete on national and international levels.

Toward this end, the district has applied for country status and is scheduled to participate in the Trends in International Mathematics and Science Survey (TIMSS) in 2011 as a stand-alone country. According to Bob Vise, Pueblo City Schools’ executive director of assessment and technology, “Applying as a ‘country’ is the only way to see how our students measure up to the new national and international standards that we have set.” Although TIMSS does not disaggregate results by race or SES, the district will be able to report individual student scores.

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Moving to international standards has been a challenge for a city that holds fast to its traditions. A one-room adobe hut built on the Fountain River in 1862 served as Pueblo’s first school. Today, Pueblo is a diverse city of more than 100,000 people. The district’s student population is 61 percent Hispanic, 34 percent white, and about 3 percent African American, with the remaining 2 percent African American Indian or Asian; 69 percent qualify for free or reduced-price lunches. Even as the community has grown, the local buzz still centers on the long-standing rivalry between high schools. According to Sandy Gutierrez, president of the Latino Chamber of Commerce, “This is a city with deep roots; folks speak with pride of their high school, even more so than the college they attended. They are proud to trace back and show that their school is the same school that their parents and their parents before them attended.” With all this generational support, people do not want to see the schools flounder. However, according to Andrew Lang, a community leader, “At the same time, people were not tuned in to a global perspective. Local construction plants were moving their operations to Juarez, Mexico, and parts of China, and folks hadn’t made the connection to the quality of education people were getting here at home.”

Mobilizing the Community Around a Bold Strategic Plan

Today in Pueblo, the push for preparing students to be worldwide competitors exists not only in the classroom, but in the community as well. The work of mobilizing community support in working toward international standards is now under way.

In 2006, Covington launched the largest and most comprehensive strategic planning process in Pueblo’s history. District leaders brought together 350 individuals who fully represented Pueblo’s diversity, including business people, K–12 educators, university professors, union representatives, health care and government workers, and law enforcement officers. The group encompassed representative numbers of students, parents, grandparents, and blacks, Hispanics, and whites. The district sent a steering committee composed of four community members and two district staff to be trained in the Cambridge Group’s strategic planning process. Lang, CEO of Pueblo-based Bassett Construction, signed on as a member of the steering committee.

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Pueblo—World Class

Pueblo City Schools’ plan has the following six objectives:

■ All students will successfully complete a comprehensive individual education plan to prepare them to enter 21st century academic pursuits or the global workforce.
■ All students will meet or exceed international standards and measures of achievement.
■ Pueblo City Schools will recruit and retain a highly qualified competitive workforce sustained by “cutting edge” professional development for internationally competitive schools.
■ Pueblo City Schools will provide a system of support for students to be civic, responsible, healthy, and involved members of the global community.
■ All Pueblo City Schools are conducive to superior teaching and learning and are capable of responding to the diverse needs of 21st century learners.
■ Pueblo City Schools will secure and utilize 100 percent of human, financial, and physical resources required to create and sustain world-class public schools and this strategic plan.

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was good business practice: “I see things from an economic perspective. I see firsthand how businesses are outsourcing. We were falling behind as a community. I wanted to do my part.”

The steering committee worked with a team of 40 from the larger group to complete the initial work of refining the district mission, values, and belief statements. Among those statements was the following: “We will honor and respect our traditions, but we will not let them get in the way of progress toward our goal.” The team developed six overarching objectives that became the core work of the district (see the box titled “Pueblo—World Class”). Once the school board approved the objectives, the action team of 350 was divided into six groups to identify solutions to realize the objectives. Throughout the process, Covington implored the group to think outside the box and build a radically new model of what public education should look like to create a globally competitive student and workforce: “If at the end of your work you have come up with something that looks like Pueblo District 60 today, you have failed.”

The plan took 10 months to complete, and it took 18 weeks to draft the strategies for each of the six goals. Lang reports that “it was not easy to reach consensus. We had to get people to embrace significant change. What made it challenging is that we were charged with building a plan that fit the entire community, not just the school district.”

Two centerpieces of the plan are teaching all students to national and international standards and providing every child with an individualized education plan (IEP). Board President Stephanie Garcia was initially concerned about expectations laid out in the plan. “I thought, ‘Are we asking too much?’ But that was exactly the charge we made to the planners: ‘Do not worry about cost or scope. Uncover and secure for us the best practices and research that will lead [us] toward dramatic increases in student achievement.’ We did not want a situation where the group came up with cutting-edge ideas but did not bring them forward because of finances.”

Community and District: Mutual Accountability

According to Covington, the best thing about Pueblo’s plan is that it is not “his” plan. The fact that the community created it is its strength and why it will be sustained, he believes. When asking teachers to change practice, he never says, “Here’s my plan.” As the community’s plan, it bears the strength of the 350 people who helped create it. A plan that is driven by the community comes with the expectation that it will be carried out and that there will be regular updates on progress. As a community plan, it is likely to do something that most school district strategic plans don’t do—that is, outlive the superintendent who was in office when it was drafted.

Ongoing progress checks on all six objectives are part of weekly senior staff meetings. Progress on selected goals is reported monthly at the regular board of education meetings, and a formal report to the community is made annually.

Modest about his role and that of his colleagues, Covington sees himself and his staff as implementers of a broad community mandate. “When it is time to go to the taxpayers for support for the next phase of implementation, it is not me or a five-member board that is asking for additional funds to sustain the plan. We take the request to the individuals who put together the plan.’ Lang notes, “With 300-plus people involved in the plan, most people are bound to know someone who knows a friend that was in on the plan.”

Reengineering Curriculum Around International Standards

Pueblo has rebranded itself with a simple slogan: “Pueblo—World Class.” But for Pueblo, “world class” is not just a catchy tag line; it has become the driver of a major curriculum overhaul. Given the charge to meet international standards, the first quest was to identify those stan-
have access to individual curriculum maps by grade level or course, which guide them in designing instruction within each content area. The maps provide teachers with the essential concepts and specific skills and performance objectives referenced to state, national, and international standards. They represent a significant shift from a textbook orientation to concept-driven instruction. The district has charged another teacher-led committee with providing teachers with specific resources and supports that can be accessed from the maps. When the interactive component is complete, teachers will be able to click on hyperlinks and view actual lessons, activities, student work, book excerpts, and Web links. They will be able to provide input and talk with colleagues across the district about lessons and resources in real time.

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Operation Rollout
Gray distinguishes the maps from the pacing charts the district previously used, which “required teachers to be on a specific page on a particular day. Teacher autonomy was severely limited because the teacher was locked into being on a certain page. Even if students were not ready, the teacher had to work from that page if she was to adhere to the pacing guide.” According to Jodie Crane-Murphy, Centennial High calculus teacher and part-time math coach, the new curriculum maps provide just the right mix of autonomy and specificity. “The maps tell you exactly what objectives you need to teach to mastery but do not lock you into using a prescribed book or activity. I can choose the resources and activities that will best grab my students’ attention and engage them—whether a book, the computer, or some other interactive resource.”

Crane-Murphy stresses that teachers need a lot of contact time with the curriculum maps. They need to walk through them, become familiar with how topics are ordered, and discuss and come to understand the underlying rationale for why the content is presented as it is. That is where a process that teacher leaders have dubbed “forward lesson planning” comes in. Teacher leaders are bringing teachers together in a step-by-step process to codesign lessons around the maps. The power in the process is that all teachers—elementary, middle, and high school—meet during their early-release time throughout the year. Teachers by grade level and course look “forward” into the maps to codesign lessons. In the process, they (1) pinpoint what needs to be taught, (2) predict possible student and teacher misconceptions with the content, (3) identify best practices, and (4) design formative assessments. After teaching the lesson, they regather to examine student work, identify benchmark examples of standard-level work, and refine the lesson with colleagues. Gray describes the work as “breaking down barriers” as teachers from different schools and feeder patterns join to talk about content and instruction.

In addition to lesson studies, teacher leaders and school-based math and reading coaches are supporting buildings and individual teachers as they attempt to implement the new maps. Chief Academic Officer Tammy Clementi-Watson recognizes that even with all the ongoing professional development, much more is needed for teachers to own
the maps and reach their full capacity in using them to drive instruction. The district acknowledges that it will be a few years before the maps are in full use, but the idea is to saturate the teachers with support.

Using Research and Data to Correct System Flaws

Although the curriculum-mapping process was arduous, doing the research has paid off. The work revealed significant content overlaps and practices that ran counter to current research and were impeding children’s success. For example, Gray recounts uncovering research that debunked the prevailing district practice of teaching 2nd graders multiplication tables to 12. “Brain research has revealed that generally children are not developmentally ready to handle the abstraction of large numbers until they are older. The recommendation internationally is for children to learn up to 5 × 5 in 2nd grade and up to 10 × 10 in 3rd grade in order to achieve proficiency up to 12s by 4th grade. Well-meaning, dedicated teachers were wasting valuable time trying to teach all the tables in 2nd grade. As a result, kids were missing out on other important math concepts and were failing their tables anyway.” The new maps correct this misconception and allow teachers to teach multiplication to mastery in small chunks across grade levels.

District leaders are also using data to understand how the system is getting in the way of progress. Although the district was nationally recognized for making monumental improvements in the elementary grades, Pueblo central office leaders were regularly perplexed by the disturbing dip in performance once students reached middle school, a trend that persisted into high school.

Consistent with his determination to ensure the culture of high expectations for all, Covington went directly to teachers with the problem. District leaders scouted out four math teachers who were beating the odds with their own students and tasked them with addressing the historically vexing problem of low middle school math achievement.

After the teachers were on the job for about two months, Covington describes what he remembers as a breakthrough moment. “The math teachers walked in and literally cleared the piles of books and papers on my work table and said, ‘You’ve got to see this.’” What they showed him revealed that of all the 5th graders who exit proficient in math, 70 percent are placed in the lowest-level middle school math classes. These students, overwhelmingly minority, and despite having mastered 5th grade math, were routed into middle school classes that forced them to repeat 5th grade, and in some cases even 4th grade, material.

This institutionalized practice undervalued the achievement of many students. It was no surprise that after repeating one or two years of math that they had already mastered, students quickly lost ground and the gap widened. When these students were tested on 6th grade material, they were sorely unprepared. The math teachers, although pleased to have identified the source of the problem, were unsure of whether they could correct this unfair practice for the current year, given that middle school students had been in class nearly five weeks and schedules were set. For Covington, the answer was easy. He directed all six middle schools and the two K-8 buildings to move every child who had scored proficient in 5th grade into higher-level math. This non-negotiable directive made after the school year was well underway could have wreaked havoc through the district. However, Carol Partin, Pueblo Education Association president, notes that teachers backed the change 100 percent because it came from teachers. The 2008 scores on CSAP, the state assessment, showed modest gains that may be attributed to the schedule change. Sixth graders broke the longstanding trend of declining middle school scores when, in 2008, they posted a 4-point gain.

Strategy: Acceleration, Not Remediation

Because many students have gaps in their learning and still others are entering the system many years behind, the district needed a grand strategy to bring all students up to speed. The strategy they developed was to meet students at their current instructional level and quickly accelerate their progress toward mastery. In addition to using the math and reading coaches housed in each building, the district is leveraging technology, using small-group instruction, and revamping instructional approaches and course sequences to get all students on track to succeed with the district’s rigorous international standards.

The district was determined to leverage technology to make a difference for students. According to Bob Vise, the district developed specific parameters for selecting tools. They were looking for results-driven learning systems that included careful teacher monitoring and that were aligned with Pueblo’s curriculum maps. In addition, the tools needed to provide accelerated, not remedial, instruction in the regular classroom for students identified as partially proficient or below on the state test. Pueblo chose Successmaker Enterprise and America’s Choice Navigator. With the addition of computers in every classroom, teachers can now use both tools to help differentiate instruction for small groups of students in the context of regular instruction. In this way, students receive instruction
Preparing Every Child for the Challenges of a Changing World

The offices of senior administrators of Baltimore County Public Schools in Maryland are located atop a hill in a converted red brick mansion built as a private home in 1915. With a sweeping staircase, oriental rugs, stately white pillars indoors and out on the veranda, it feels like a vintage presidential dwelling on an elite college campus.

Despite the well-seasoned setting, Superintendent Joe Hairston and his staff are driven by a forward-looking vision. Hairston sees an economy in flux, with most of the jobs not yet created. “That workforce is sitting in our classrooms now,” he says. “They have no factories to go to. It’s all based on the future—a future that is increasingly distinguished by globalization and technology. Our treasures are creativity and innovation. My role is to constantly look over the horizon so that we’re always in a state of improvement.”

Baltimore County Public Schools has the fourth-highest graduation rate among the nation’s 50 largest districts, and, among those same districts, it has been recognized by the Schott Foundation for Public Education for having the highest graduation rate for African American males. For the second year in a row, 10 of its 24 high schools were named by Newsweek as among the top 5 percent in the nation.

Baltimore County covers 600 square miles and surrounds the city of Baltimore on three sides—the fourth side of the city is its harbor. For the past decade, families, most of them minorities, have been moving out of the city and into the county, where communities are perceived as safer and schools as offering a higher quality education. Meanwhile, a steady flow of mostly young, relatively affluent whites have moved from the county into certain neighborhoods in the city, such as the trendy Inner Harbor area. As a result, the school population in the county has shifted from largely white to majority children of color, with African Americans accounting for the largest segment of the nonwhite population. Since 1990, minority enrollment has increased 190 percent.

Among the nation’s 50 largest school districts, BCPS has been recognized for having the highest graduation rate for African American males. As of September 30, 2008, the student population was 48.7 percent white, 39.5 percent African American, 5.8 percent Asian or Pacific Islander, less than 5 percent Hispanic, and less than 1 percent American Indian. As of October 31, the percent of students who qualify for free or reduced-price meals was 36.5.

When Hairston arrived in the district in March of 2000, he faced a leadership dilemma: By all accounts his predecessor was appreciated for maintaining the status quo. And Hairston says, “I was coming into a system that had a legacy of rejecting outsiders.” At the same time, the community was undergoing significant demographic changes, and the system was not then prepared to respond to these changes or to the implications for teaching and learning in a rapidly globalizing world. His challenge was to gradually awaken the district to the need for change without being perceived as an outsider seeking to disturb the peace.

Early in his tenure, Hairston commissioned a series of independent performance reviews and studies of the school system. For example, a four-person transition team presented detailed findings and recommendations on curriculum, instruction, and student assessment; accountability; equity; personnel; fiscal services; physical facilities; and overall organization. Their report surfaced significant achievement gaps. The scores of African Americans on the Comprehensive Test of Basic Skills, for example, were 30 points below those of whites in reading and language arts and nearly 40 points below in math, with the largest breach being that between African American and white males.

Collectively, the external reports provided empirical data and a starting place for conversations and forums Hairston held with school administrators and teachers, community members, and eventually central office employees.

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Blueprint for Progress and Results

Another key document used in these early conversations and forums was the district’s new Blueprint for Progress. This lean publication articulates the district’s vision, mission, belief statements, performance goals, performance indicators, and key strategies.

“You put this in the hand of parents,” Hairston observes, “and it becomes a powerful document for asking, ‘What are you doing to make my child have an experience that would have these characteristics?’ That’s a powerful question.”

These conversations and forums spread into networking that gradually eroded the inertia that prevailed when Hairston first arrived. The commissioned reports provided objective data calling for change, and the Blueprint articulated a vision and strategic direction for the future, squarely focused on equity and excellence in student achievement.

Nine years after Hairston’s arrival, the Blueprint remains a central driver in the district’s continuous improvement efforts and an essential source of systemwide coherence and alignment. In the August 2007 Administrative and Supervisory Meeting, a convening of all principals and central office administrators and supervisors, Hairston asked everyone to pick up their copy of the Blueprint, open it, and “read the first thing you see. Now given my role and responsibility, what do I have to do, what behaviors do I need to exhibit, what decisions do I need to make to achieve the quality of education described here? This is what I call unpacking the Blueprint. By unpacking the Blueprint . . . we will harness the true power of the school system. The Blueprint allows all 17,000 of us to start from the same page, focusing on the same clear standards and objectives.”

The first Performance Goal in the Blueprint calls for all students, by 2012, to reach high standards, as established by BCPS and the state, in English/reading/writing, mathematics, science, and social studies. And Performance Goal 5 simply states that “all students will graduate from high school.” Although much work remains to achieve these and other aspirations, the district has already made substantial progress.

The Maryland Report Card indicates that while overall student achievement has been steadily rising in BCPS, gaps identified by race have narrowed. On the Maryland School Assessment, for example, in 2004, 54 percent of African American students were advanced or proficient in reading, while 87 percent of white students did—a 16-point gap. By 2008, 84 percent of African American students were advanced or proficient in reading, compared with 93 percent of white students. The gap had narrowed to 9 points.

In 8th grade reading, all students are gaining ground, with a slight narrowing of the gap. In 2004, 54 percent of African American students and 74 percent of white students were advanced or proficient. By 2008 that had grown to 60 percent and 79 percent, respectively.

As noted, the Schott Foundation has recognized BCPS as having achieved the highest graduation rate for African American males among the nation’s 50 largest school districts. The district graduates 72
percent of its more than 21,000 black males and 79 percent of white males. *(Given Half a Chance: The Schott 50 State Report on Public Education and Black Males is available at http://www.blackboysreport.org/)*

**A Four-Legged Stool**  
Deputy Superintendent Robert Haines notes that when Hairston first arrived, he articulated four underlying principles, or four legs of a stool, that provide the focal points for the continuous improvement of a large organization. The four legs, relates Haines, follow simple principles:  
(1) “Whatever is good for children should be good for children across the district.” The same high standards of learning and a common curriculum aligned with those standards should be evident systemwide. (2) “Teaching and learning take place in the schoolhouse, not in central office. Therefore, your best resources need to be focused on schools.” Supporting school principals and building their capacities as instructional leaders is an extremely high priority. (3) “Figure out what we need to do and do it really, really well—all the while focused on the needs of children.” Here Haines references a key image from the Jim Collins business bestseller *Good to Great*—namely, the flywheel. Collins indicates that organizations that have made the journey from good to great figure out their core business and go after it with a relentless persistence. (4) “The fourth leg is *all,*” says Haines, quoting an oft-repeated phrase of Hairston, “all means all.” Although common standards and curriculum must be established for all students, there will be variation in how much time individual students need to master standards and how much and what kind of support they require. This is where differentiation comes in—differentiated instruction and differentiation of resources.

“Those are the legs Dr. Hairston gave us right at the starting gate,” says Haines. “Everything we’ve done has been about getting better at those elements.”

**Technology and Data**  
Early in Hairston’s tenure, system leaders began looking at the district’s technology infrastructure. To prepare students for life and work in the 21st century, the district would need cutting-edge technology for teaching and learning, data collection and analysis, communications, and professional learning.

The district was at the word processing stage when Hairston arrived, according to Barbara Dezmon, assistant superintendent for equity and assurance. “He said, ‘This is unacceptable. If we want to change the achievement of students, we must change the efficacy of the way we work as a school system.’”

In 2000, the district invested $11 million in converting computers to a systemwide, high-speed, Windows-based infrastructure to connect all schools and district offices. With the new infrastructure in place, the next phase was the creation and continual improvement of a data warehouse to integrate data collection and reporting, so that all teachers and administrators had access to student performance information they could use in making instructional and leadership decisions. This has proven to be a valuable resource not only to individual teachers but also to principals as instructional leaders.

“You have examples of principals grabbing this or that data and using it to educate the faculty to drill down into specifics that involve instructional techniques,” says Jerry Dalton, a district researcher and psychometrician. “Some students in a school may have weaknesses with particular subcomponents of reading, and they are able to go down to that level of specificity.”

By 2005, the district was introducing wireless laptop computer carts in schools. Laptops improved the use of space while enhancing instructional flexibility. That same year Joe Hairston, on behalf of the district, received a number of recognitions for advanced use of technology in support of management and instruction:

- International Society for Technology in Education 2005 Award for Outstanding Leadership
- MICCA 2005 Outstanding Technology Leader in Education Award, a statewide honor
- ET3 Technology to Empower Community Champion Leadership Award, a national honor
- Top Ten Tech-Savvy Superintendents Award from *eSchool News*

In 2007, BCPS became the first Maryland district to make its complete listing of the library collection available online to any computer with Internet connectivity. And by the following year, every school in the district enjoyed wireless connectivity.

To advance teaching and learning in a rapidly globalizing world, the next frontier for BCPS is the virtual classroom. Chesapeake High School, the district’s first schoolwide STEM (science, technology, engineering, and mathematics) academy, will pilot the virtual classroom rollout. The district is working closely with engineers from the Johns Hopkins University Applied Physics Laboratory, Northrop Grumman, Lockheed Martin, and area software development companies to adapt gaming software for academic purposes.

“A lot of military and airline training is done virtually,” says Hairston. “We want to create classrooms to give kids more real-life experiences beyond the textbook, because what’s in print is often five years old. With virtual classrooms, it’s almost real time, because you can adjust information to make it current.”

Hairston and his tech team also see this approach as having high potential for increasing student
engagement, because simulations can create a sense of immediacy. “We just think using 3-D simulation technologies that are common in more technical fields and bringing those technologies to kids will provide them so many new opportunities to learn things in ways that professionals are learning them,” says David Peloff, program director for emerging technologies at the Johns Hopkins Center for Technology in Education.

Virtual learning will first be introduced in STEM classes at Chesapeake High, and the first software test took place in December 2008. The district is now training teachers so that virtual learning can be implemented at Chesapeake in September 2009. School officials got a preview at the Hopkins Applied Physics Laboratory. They participated in a simulated rescue mission to Mount St. Helens in Washington State via five 70-inch screens. The program used in the simulation includes questions and clues relating to botany, meteorology, and math, according to Peloff.

**Equity—It’s About All Children and Therefore Each Child**

“The reason for our success is that we strive to take care of every student we have,” says School Board Vice President Edward Parker. “We know students will be competing worldwide.”

Dezmon, the assistant superintendent for equity and assurance, explains that her office “originated under Dr. Hairston to assure equity and opportunity for all students. From the minute he entered, he said he wanted all children to have equitable opportunities.”

District leaders believe that reaching all children means attending to their individual needs and differentiating instruction accordingly. In addition to providing extensive professional development in the pedagogy of differentiation, BCPS developed the Style to Content Learning Preferences Inventory, a survey that collects information on students’ learning preferences—how they like to have content structured and sequenced.

According to Dezmon, this program is “based on the theory that if you want to prepare life-long learners, you not only have to increase content but also learning modalities.” The survey information helps teachers understand students’ preferred learning styles to inform decisions concerning individualization and grouping of students.

The district has developed and in some cases adopted a number of programs to meet individual student needs. Among these is the 100 Book Challenge, operating in more than 20 district schools, with students reading independently for an hour each day. In this program, teachers offer a mini lesson, and students read at individualized levels, based on fluency and comprehension, choosing from a variety of genres and authors. Teachers work one-on-one with students on individualized reading goals. An evaluation of the program at six pilot schools found that on average students make eight months’ growth in reading during a period of four-and-a-half to six months.

BCPS has also implemented Advancement Via Individual Determination, or AVID, in 23 high schools. See the box entitled “Raising Expectations at Kenwood High School” to learn more about AVID.

**Focusing the System on Principals’ Needs**

“I banked everything on the principals,” Hairston says. In Baltimore County, banking everything on principals does not mean giving principals full autonomy. As Haines explains: “The service model has a simple philosophy—that is, anything that can be done by someone not in the school should be done by them so that the principals’ focus is on education. The flip side of that . . . is that there has to be quality control. Area assistant superintendents and the district’s curriculum and instruction staff are responsible for making sure that the delivery is meeting the standards we want to meet.”

The BCPS central office staff sees its reason for being as service to principals and their schools. This represents a shift in thinking and practice for this school system, as it would for many. One particularly effective means for bringing about this paradigm shift is the establishment of “principals on assignment” to bring the principals’ perspective to the curriculum and instruction department in the central office. One principal on assignment, Karen Harris, is serving as director of language arts—pre-K through grade 12. Three positions report to Harris: coordinator of world languages, coordinator of elementary language arts, and coordinator of secondary language arts. Two of those positions are also currently filled by principals on assignment. “I remind my folks that they are there to serve schools and what it’s like to be in a school and what that service needs to look like and feel like,” Harris says.

Harris offers an example of how that perspective can make a difference. One staff member had a vision around starting a new written language initiative and thought it should be rolled out systemwide. “I said, ‘Let’s step back and see—is this something that we really need to roll out? If I’m a principal receiving this information in September, I’m going to be very resistant to it.’” Harris explains, “I’m the voice of reason and sometimes the naysayer.”

Principals meet once a month, and a task force that convenes three times a year relies on surveys and focus groups with principals to prioritize and design professional development events for them based
on topics they have identified as needs, such as differentiation, student engagement, academic rigor, and parent involvement.

Principals Academies are annual two-and-a-half-day retreats, organized by the principals and funded by the district. Board members attend, as does the superintendent, who lays out his vision for the year. “We always come away from that energized in a lot of ways,” says Tom Shouldice, principal of Dundalk High School. “It’s an opportunity for the whole corps of principals to really work together.”

Principals who are new to the district also benefit from a two-year mentor program, which is directed by a principal on assignment. It includes monthly meetings, one-on-one mentors, and hands-on workshops on topics of importance to new principals, such as managing a school budget, staffing, and communications.

Developing Human Capital
Performance Goal 3 in the Blueprint for Progress states that “all students will be taught by highly qualified teachers.” The district recognizes that to prepare students for a world where workplace competitiveness has been globalized, high-quality teaching for all students is essential. According to the No Child Left Behind Act, to be deemed highly qualified, teachers must have (1) a bachelor’s degree, (2) full state certification or licensure, and (3) evidence that they know each subject they teach.

When the law was enacted in 2001, only about 60 percent of BCPS teachers were highly qualified, and a significant proportion—mostly in high-poverty schools—had, at most, provisional certification. Now, 96 percent of teachers in the district meet the “highly qualified” standards. At the elementary level, according to Donald Peccia, assistant superintendent for human resources, 99 percent

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of teachers are now highly qualified, and no gap exists between high-pov-
erty and low-poverty schools with regard to teacher qualifications.

This impressive progress has been realized through implementa-
tion of a number of strategies, including the following:

- The district recruits new teachers from 54 colleges and universi-
ties—including 22 historically black colleges and universities—in more than 16 states.
- Principals are encouraged to participate in recruiting trips.
- Bonuses are used to attract highly qualified teachers to high-need schools.
- Limitations are placed on in-district transfers; a highly qualified teacher is ineligible for transfer within the district if a highly qualified teacher is not available as a replacement.
- Department chairs work with veteran teachers to upgrade their qualifications as needed.

Priority Schools
The district’s array of strategies aimed at increasing equity so that all students are prepared for life and work in a rapidly changing world includes the identification of “priority schools.” Factors that contribute to this designation include achievement data, resource challenges, concentration of poverty, social issues in the surrounding community, and transient staffing patterns. Extra resources are set aside for these schools, and central office service providers know that these schools have been given priority status in such areas as staffing and maintenance.

A prime example is Woodlawn High School, which went through eight principals in 10 years. As a priority school, Woodlawn has been stabilized to the point where in October of 2008 the district’s ombudsman reported having received five calls from parents who once had requested to have their children transferred out of Woodlawn, but were now calling to say that they wanted their children to stay in the school.

The secret to this success, according to Hairston, is Brian Scriven, who had been principal of a middle school that feeds into Woodlawn High before becoming principal at Woodlawn in July 2008. When Scriven moved to Woodlawn, it was not only a district priority school but also a school required to restructure under No Child Left Behind, meaning, among other things, that the whole staff was phased out. Scriven ended up retaining 85 percent of the staff, but according to Hairston, the school assumed a new culture. Scriven was already known to students who had attended the feeder school and to their parents, and so trust was already established.

Scriven explains that his area assistant superintendent is a direct officer of the superintendent. “When I talk to him, I know I’m talking to the superintendent.” The timing of Woodlawn’s restructuring under NCLB required the master schedule to be revamped in late July. Scriven says he met at least a dozen times with his area assistant superintendent during that summer, “making sure we were ready to schedule new staff. That’s something I’m willing to do,” he says, “because I know that if I involve the area assistant superintendent in key decisions, I’m aligned with the larger system, and we are heading in the right direction.”

Board-Union-Administration Relations
Senior district leaders, the school board president and vice president, and the president of the Teachers Association of Baltimore County (TABCO) agree on the following: (1) the district and TABCO are collaborating in some areas; and (2) relations between the district and TABCO are strained from time to time. An example of the former was a curriculum audit, with association leaders involved throughout.

An example of the latter was a teacher rally at the central admin-
istration campus on the night of a board meeting in October 2008. Teachers carried signs and wore black to “mourn the lack of cooperative spirit,” says TABCO President Cheryl Bost. At issue was the lack of cost of living adjustments (COLAs) to teacher salaries and a proposal to reduce 403B retirement plan providers to one.

At a time when every day brings news of districts forced to cut jobs and services due to the slumping economy, Hairston points out, “We’re the third-largest school system in the state with 17,000 employees, and we didn’t cut jobs or programs.” A couple of weeks after the teacher rally, the school board voted to extend contracts with five retirement program vendors. Dr. Hairston also included COLAs in the FY 2010 budget request.

Sustainability
To sustain the progress that BCPS has realized, Hairston says, “We’re constantly working harder, making adjustments, monitoring the data, and having a clear understanding of the population we’re dealing with. And we’re always projecting ahead. We can’t afford to live in the now. My real focus is on what’s going on six months down the road.”

Given the school board’s strong support for the current direction, it’s difficult to imagine Hairston’s successor coming in and trying to dramatically change course.

The BCPS train has left the station and is heading rapidly toward a destination well beyond this point in the 21st century. The system is aiming for a place where all students achieve high standards of learning and are well prepared to invent the future they will inhabit.

—Scott Thompson
calibrated to their individual needs, while not missing the grade-level instruction in concepts they must master to meet high standards.

With the tools now in place in most classrooms for two years, the district has the data it needs to back up the effectiveness of these technology-based interventions. According to Vise, “A student who successfully completes 20 to 25 hours on Success-maker or Navigator gains the equivalent of one grade level.”

In some cases, bringing students up to standard required not just differentiation of the standard curriculum, but new instructional approaches. In too many districts around the country, students who enter 9th grade two to three years behind in mathematics are automatically channeled into remedial classes, where content is diluted and knowledge gaps widen instead of narrow. To accelerate math instruction, the district searched for an approach that would replace remediation with rigor. For Pueblo, the answer has been the Ramp Up to Algebra strategy from America’s Choice. With this approach, Crane-Murphy describes the instruction that has replaced traditional math for Pueblo middle schoolers and 9th graders who have struggled with math: “Every day students are working in groups to discover concepts; they are identifying their own mathematical misconceptions; they are required to present their solutions to their classmates using multiple representations and appropriate math vocabulary.”

The success of this approach is in the results. After receiving daily 90-minute blocks of this type of higher-order instruction over two semesters, the vast majority of students move directly into algebra.

To accelerate reading progress, Pueblo has implemented Linda Mood Bell Multi-Sensory Learning Systems (LMB) districtwide. The district has certified its own teachers as LMB facilitators who train teachers to use and reinforce this approach to reading and comprehending in the regular classroom and across content areas. Ninth grade students who are not proficient in reading are assessed using the LMB diagnostic battery to determine their specific reading deficits. They then receive one semester of intensive instruction. Gala White, 9th grade reading teacher at East High, notes that by applying the multisensory strategies to the textbooks that students need to be able to read in their content area classes, the 80 hours of instruction is raising student scores and getting them on track. To ensure that one set of interventions serves all students, special education staff trained teachers to support special needs students in the regular classroom using the same interventions.

Holding High Standards—Not Time—Constant

Basing school on something other than “seat time” was a difficult shift—even for some on the strategic planning committee. The use of technology is allowing Pueblo to abandon the notion that “nine months per grade” is the only way to structure school. The standards are non-negotiable, but the time required for a student to master them may vary widely. According to Covington, one of the district’s misconceptions that has historically held students back is the notion that if mastery of skills is

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“Every day students are . . . required to present their solutions to their classmates using multiple representations and appropriate math vocabulary.”

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Putting Rigor in the Diploma
Raising standards to international levels has also meant a new high school diploma in Pueblo. According to Brenda Krage, executive director of secondary instruction, “It is all about what you are teaching and how you are teaching it, hence the need for the curriculum overhaul we have undergone.” However, bold changes in curriculum need to be accomplished by bold changes in policy as well. Although Colorado is in the process of developing guidelines, historically the state has had no common graduation standard; as a result, there are 178 different sets of graduation requirements in the state—one for each district.

In looking at their own graduation requirements against the standards set by the Colorado Commission on Higher Education (CCHE), leaders had to wrestle with serious alignment issues: District requirements were not aligned with university requirements, nor were they in sync with the district’s new international standards. According to Krage, “Many of our parents had no experience with college admissions hurdles. They trusted us and followed all the rules and came to find out their children had not even met the minimum requirements for college entrance without remediation.”

The district formed a diploma task force that examined graduation requirements across the country. Krage notes that the diploma overhaul has been three years in the making, with a full year spent reviewing the research of Achieve (www.achieve.org), the American Diploma Project (www.achieve.org/node/604), and Education Trust high school graduation statistics (www2.edtrust.org/edtrust).

The result is a new diploma that allows students to account for an emphasis on higher education or career skills—both with equally rigorous standards. Each one requires high-level attainment in all core content areas.

Essentially, the diploma represents a “four-in-the-core” design—that is, four courses are required in each core subject area: math, English, social studies, and science. This approach varies from the previous Pueblo diploma that required four English and social studies courses but only three math and science courses. Consistent with higher standards, there is not a basic or remedial-level class anywhere in the new design. For example, to receive a Diploma with Academic Excellence, students must complete a math sequence that includes, at minimum, algebra I and geometry; beyond that, students can choose classes such as statistics, trigonometry, precalculus, and calculus. Similarly, to receive a Diploma with Career and Technical Advancement, students must complete the four-in-the-core course sequence with the same math requirements, but they can choose electives in challenging courses that directly prepare them for state-recognized career certifications such as welding, emergency medical technician, and electrician.

The other significant research-based addition to the diploma has been the freshman and senior seminar courses. Krage points to conclusive national data that shows that the overwhelming majority of unsuccessful students exit the system at 9th and 12th grade. “We lose so many kids at both ends of the high school experience—freshmen who never make the connection to high school, and seniors, many of whom would be first-generation college attendees but who don’t know how to navigate the college entrance process.” The task force realized that to be successful, the district would have to get extremely purposeful about how it guides students through these critical transitions. Policies had to be in place so that nothing was left to chance. As a result, all students in Pueblo must take freshman and senior seminar classes. These feature small class sizes and personalize the high school experience for students. The seminar curriculum addresses individualized goal setting, long- and short-term planning, planning for college and postsecondary options, and teamwork.

The new graduation requirements went into effect this year, so the 9th grade class of 2008–2009 will graduate with these diplomas of distinction, which district leaders believe will ensure postsecondary success.

Leveraging Technology to Provide an IEP for Every Student
Among the daunting challenges articulated in the district’s strategic plan
is the expectation that each student will be provided an IEP. Bob Vise is leading the charge to tie all existing interventions together and provide each student with an individualized plan. Using Galileo, a powerful online tool from ATI-Online, the district is assessing all 18,300 students three times a year against the specific standards identified in the curriculum maps. In September, it completed benchmark testing of students in grades 3 through 10 in reading and math, and students in grades 5, 8, 9, and 10 in science.

The Web-based test yields instantaneous results that teachers can use to plan instruction. Because the testing is done online and refreshes every 10 seconds, the teacher can monitor students’ understanding of each question as they are taking the test. The teacher can pull up classroom- and student-level profiles and get immediate analyses of each question. The first test provides a baseline, and subsequent tests measure growth and mastery of skills taught during the previous quarter. Marne Milyard, principal of Goodnight School, a K–8 school, says her teachers embraced the Galileo benchmark assessments: “My teachers’ response to the performance objective profiles was ‘Finally! Now we know what we have to teach before we have to teach it!’ They got busy planning what they were going to do differently in their classrooms so that all their students could meet international standards.” The performance objective summaries provide individual pictures of where each child is with regard to each skill in the curriculum map.

Once the tests are completed, the tool develops an IEP for each child. Vise says the plans provide teachers with one-stop shopping for their instructional planning. The profile includes all the data in one place—the benchmark results, CSAP, DIBELS, and Linda Mood Bell diagnostics. It links with existing district interventions and so prescribes use of Successmaker or Navigator, depending on a student’s performance. Not only can teachers use results to design individualized instruction; parents or students also can pull up the profile, and with a click they are routed to assignments and homework practice that address their specific needs.

Using Value-Added Analyses and Data Discussions to Drive Professional Development

Although Colorado only began making value-added data available to districts this year, Pueblo has been ahead of the curve in using growth models to understand the value that instruction is adding to student achievement. They have been providing growth data to all teachers since 1998, and this past year they began providing the data to principals to use in their conversations with staff about data.

The reports provide a picture of how individual teachers facilitate and influence progress by subject area with low-, medium-, and high-performing students over the course of a year. The data sheds light on successful teachers who have achieved more than a year’s worth of growth with students in a year’s time—teachers to watch and learn from. It also identifies teachers who need additional professional development and system support to help them reach all of their students. For example, a teacher looking at the report excerpt shown above would see that overall, he is “above” other teachers in the district in reaching his students, meaning he has made decidedly more progress than...
other teachers in the district who served the same students. Looking more specifically, the white bars represent this year’s progress for high-, medium-, and low-achieving students; the blue bars represent the previous year’s progress for these same students. This teacher sees that he has made slightly less progress with low-achieving students and significantly more progress with students at the middle and upper ends of the achievement spectrum, which indicates the need for professional development related to instructional strategies for struggling students.

At Goodnight School, Milyard uses the data in two ways: to identify professional development that all her teachers may benefit from and to coach the growth of individual teachers. “The growth data showed that we had reached a plateau with many of our high-performing students. They had spent all year with us and had made much less than a year’s growth. As a result, we launched a book study around how to activate background knowledge and teach academic vocabulary.”

The Path Forward
Pueblo has gone a long way toward eliminating the predictability of a student’s achievement based on race or SES. In September 2008, 12 of the 39 schools honored statewide for eliminating the gap and raising the bar were Pueblo City schools. Nearly half of Pueblo’s regular elementary schools (10 of 22), along with one charter and one magnet school, were honored by the state for eliminating the achievement gap while raising the bar. The district has also been singled out as having high-performing high-minority schools by Education Trust in the report Dispelling the Myth Revisited. Pueblo has but eliminated the 3rd grade reading gap. The data has fluctuated slightly over the past six years, but the average gap between proficient nonwhite and white 3rd graders is only 2.3 points.

Although Pueblo still has work to do at the secondary level, the overall K–12, three-year trend shows that they are closing the race and SES gaps at twice the rate of the state of Colorado. In Pueblo, the 2008 reading gap between whites and nonwhites is 16.5 points, and it is 29 statewide. The 2008 math gap is 12 points in Pueblo and 26.1 in the state (see tables on page 14).

Even with all of its accomplishments, Pueblo City Schools, like most urban districts, still has a long way to go. With the strategic plan and rigorous curriculum maps in hand, it is redoubling its focus on improving instruction. Under CAO Clementi-Watson, it has created a new board policy adopting Managed Instruction as the umbrella for instructional leadership. During 2009, dubbed the “year of instruction,” the district is taking on administrator academies, professional learning communities, and data dialogs—all designed to build expertise and improve instructional practice toward world-class standards.

—Deborah Winking