There is widespread concern in the education community regarding retention and graduation rates in the United States. It’s not hard to see why: three out of every ten public high school students will not graduate. In other words, 1.3 million students drop out each year and 7,200 students leave America’s secondary education system every school day. U.S. high school graduation rates declined to just 68.8% for the class of 2007 (Diploma’s Count 2010).

The dropout rate continues to be bleak in higher education as well. Of the students who enter college, nearly a third drop out after their first year and 50% never graduate. And many students who go on to higher education are not ready – at community colleges, nearly a million students take remedial courses (mostly in English and math) each year at a cost of approximately $1.4 billion a year (Supiano 2006). Moreover, studies clearly indicate that remedial students are most likely to dropout (Bowler 2009).
Three out of every ten public high school students will not graduate.

The demographic profile of dropouts is also disturbing. Graduation rates for both males and minorities are significantly lower than the national average of 68.8%. Graduation rates for males average 66%, while graduation rates for minorities, both male and female, are even lower: 55.5% for Latinos, 53.7% for African-Americans and 50.7% for Native Americans. Graduation rates for minority males are the weakest: 50.6% for Latino males, 46.7% for African-American males, and 46.4% for Native American males (Diploma’s Count 2010).

These dropout rates are especially troublesome when considering the numerous benefits of an education in our rapidly changing global economy. Individuals possessing higher degrees earn higher incomes resulting in higher tax revenue and stronger economic activity. An educated population makes fewer demands on social services and results in fewer expenses for federal and state governments (The Educational Pipeline: Big Investment, Big Returns 2004).

Figure 1: This Graph shows the declining average graduation rate from 1990 to 2007 (Diplomas Count 2010, p.23).
This report identifies factors that contribute to the lack of student progression through higher education and highlights successful strategies that ease the transition from high school to college. The information presented in this report is based on interviews with the following 24 education experts and leaders, representative of large K-12 school districts, community colleges, state legislatures, and non-profits:

- **Roger Benjamin**, President, Council for Aid to Education
- **Richard Brandon**, Senior Research Fellow, University of Washington
- **Sue Cain**, Coordinator for the College Readiness and Developmental Education Initiative, Council on Post-secondary Education, Commonwealth of Kentucky
- **Cheryl Charlton**, Chief Operating Officer, Idaho Digital Learning Academy
- **Christopher Dede**, Timothy E. Wirth Professor in Learning Technologies, Technology, Innovation, and Education, Harvard Graduate School of Education
- **Jessie L. Douglas**, AVID/College Board District Coordinator, Baltimore County Public Schools
- **Johanna Duncan-Poitier**, Chancellor’s Deputy for the Education Pipeline and Vice Chancellor for Community Colleges, State University of New York (SUNY)
- **Bill Flores**, President, University of Houston Downtown
- **Paul Foster**, Assistant Director, Instructional and Research Computing, UCit University of Cincinnati
- **Bill Fritz**, Director of Technology, Sycamore Community Schools and Learn21
- **Terry Holliday**, Commissioner of Education, Commonwealth of Kentucky
- **Sonja M. Karwacki**, Executive Director, Special Programs, Pre-K-12, Baltimore County Public Schools
- **Ken Kay**, President, Partnership for 21st Century Skills
- **Cheryl Lemke**, President and Chief Executive Officer, Metiri Group
- **Al Lind**, Vice President, Information and Technology, Council on Post Secondary Education, Commonwealth of Kentucky
- **Linda Michalowski**, Vice Chancellor for Student Services, California Community Colleges Chancellor’s Office
- **Beth Miller**, Manager of University Partnerships, Florida Virtual School
- **Lynne Muller**, Coordinator, Office of School Counseling, Baltimore County Public Schools
- **Sonia Ortiz-Mercado**, Dean of Student Services, Matriculation and Early Assessment Program Coordinator, California Community Colleges Chancellor’s Office
- **Patrick Perry**, Vice Chancellor of Technology, Research and Information Systems, California Community Colleges Chancellor’s Office
- **Christina Royal**, Associate Vice President of eLearning and Innovation, Cuyahoga Community College
- **Barry Russell**, Vice Chancellor of Academic Affairs, California Community Colleges Chancellor’s Office
- **Bryan Setser**, Chief Executive Officer, North Carolina Virtual Public School
- **Joel Vargas**, Vice President High School Through College, Jobs for the Future
## The Gap Between High School and College: Challenges

### 1. Misalignment of Requirements

The primary reason interviewees gave to explain the gap between high school and college is the disparity between high school exit requirements and college entry expectations. Only 25 states implemented high school exit exams for the Class of 2010 (Diplomas Count 2010). Even in states with exams, most exit requirements do not meet knowledge requirements for college-level courses. Nationally, only 22% of high school graduates meet or surpass ACT’s College Readiness Benchmarks in English, math, reading and science (ACT Press Release 2008). “In California, the high school exit exams are based on a seventh-tenth grade level—obviously much lower than what we require for entry into college-level course work in the community college system. This poses a huge issue for us in that the students just aren’t prepared,” shares Linda Michalowski, Vice Chancellor of Student Services, California Community Colleges. “In the state of New York, even though nearly 72% of students graduate from high school in four years, only 61% of all students and just 40% African-American and Hispanic students graduate with a Regents diploma, an important indicator of college readiness,” shares Johanna Duncan-Poitier, Chancellor’s Deputy for the Education Pipeline and Vice Chancellor for Community Colleges at SUNY.

Given the pressure high schools face to ensure student success on standardized tests, they often focus efforts on students passing the test. As a result, students often remain unprepared for college-level core subjects, and lack supplemental skills, like technology and critical thinking, required for success in college and the workforce. For higher education institutions, this means significant dollars and time for remediation. The disconnect between high school and higher education is further exacerbated in poor and rural communities that either cannot afford or attract teachers to teach more rigorous courses. “Over half of all students coming into our community colleges require some level of remediation,” explains Duncan-Poitier. “64% of those requiring no remediation will persist into their second year, but that number drops to only 50% if they require three or more remedial courses.”

### 2. Diverse Education Paths

The second issue interviewees identified to explain the gap is the need to understand and support the modern student. Modern students come to class with high expectations of their educators and face many demands beyond the school setting. Because of the diversity in students’ backgrounds and extracurricular demands, at-risk students are now categorized in several areas:

- Advanced students who are not being challenged
- Students who lack a driving force to push them into college (like parents) or don’t see the need or relevance of higher education
- Traditionally underrepresented student groups¹ who don’t see college as an option
- Students who want to go to college but lack the appropriate preparation
- Students who want to go to college but have some other event delaying their attendance

Historically, the traditional student progressed through the education system in a linear fashion with one entry and exit. However, today’s education system is often marked by many exit and entry points. Students may leave to join the military after high school or tend to aiding family members or new babies. Many others already have higher education degrees, but need additional education to maintain or grow their careers.

“Looking at the educational pipeline in a linear way causes us to miss 40% of the student population,” says Bill Flores, President of the University of Houston Downtown. “85-90% of our students work over 30 hours a week and 75% are parents. We cannot just look at those coming out of high school. We have to look at other student pools – those who haven’t yet gotten their GED, those who have their GED but nothing else, and those with some college credit but no degree. Then we need to identify ways to welcome them back into the education system and support their specific needs.”

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1. Traditionally underrepresented students include members of racial and ethnic minorities, low-income students, and first time college attendees. In addition, they may also include lower and middle-achieving students who might not be college-bound.
Lack of 21st Century Skills

For students to succeed in college and the workplace, they need to master 21st century skills like the ability to apply knowledge of core subjects like math, language, arts, science and history to contemporary themes of global awareness, finance, health and alternative energy. Successful post-secondary students and employees regularly use skills like critical thinking and problem solving, creativity, innovation, initiative and self-direction, leadership, adaptability, and digital media capabilities (Fadel and Trilling 2009 p. 1). But there is a significant disconnect between skills being taught in high school and skills necessary for success in college and career, and American students lag behind their counterparts overseas. Efforts like the Partnership for 21st Century Skills (P21), a national organization that advocates for 21st century readiness for every student, provide tools and resources to help the U.S. education system keep up by fusing 21st century skills with the traditional three Rs – reading, writing and arithmetic. Still, a lot of work remains to be done to successfully prepare all students to face rigorous higher education coursework, career challenges and a globally competitive workforce. The disconnect between skills being taught and skills needed is highlighted in the following chart, which is an excerpt from The Global Achievement Gap: Why Even Our Best Schools Don’t Teach The New Survival Skills Our Children Need – And What We Can Do About It by Tony Wagner (New York: Basic Books, 2008).

<table>
<thead>
<tr>
<th>Schooling Today Requires and Rewards</th>
<th>21st Century Requires and Rewards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting the right answer &amp; performing well on multiple choice test</td>
<td>Figuring out the right questions &amp; using skills to solve new problems</td>
</tr>
<tr>
<td>Working alone</td>
<td>Working in teams</td>
</tr>
<tr>
<td>Learning within academic disciplines</td>
<td>Learning how to find, communicate &amp; apply information in a ubiquitous environment</td>
</tr>
<tr>
<td>Memorizing fixed information</td>
<td>Initiative and leadership in “flat” organizations &amp; taking responsible risks</td>
</tr>
<tr>
<td>Complying with hierarchal authority and avoiding risks</td>
<td>Managing time and commitments — prioritizing and flexible time segments</td>
</tr>
<tr>
<td>Adhering to external and inflexible time segments</td>
<td>Interacting in a multimedia, graphics-based environment</td>
</tr>
<tr>
<td>Sitting passively in a linear, text-based environment</td>
<td>Working with left and right sides of the brain together</td>
</tr>
</tbody>
</table>
Low graduation rates create a number of problems in the United States, but perhaps first among them is the inability for students to attain the jobs they want because they do not have the required skills. This lack of opportunity equates to an inability to afford basic living expenses and a lower quality of life.

- Higher education institutions, especially community colleges, have to deal with the expensive and time consuming process of remediation, which is estimated to cost community colleges about $1.4 billion each year (Supiano 2006). Nationally, 42% of community college freshmen and 20% of freshmen in four-year institutions enroll in at least one remedial course (The Condition of Education 2004). In many states, remediation rates are even higher. “Approximately 80% of students entering the California Community Colleges need some remediation – creating a huge burden for the state, especially with 2.9 million students in our system,” shares Barry Russell, Vice Chancellor of Academic Affairs for the California Community Colleges Chancellor’s Office.

- The United States loses $3.7 billion a year because students do not learn the basic skills needed to succeed in college and careers (Paying Double 2006).

THE GAP BETWEEN HIGH SCHOOL AND COLLEGE: STRATEGIES

While this picture of education in the United States looks bleak, there are many initiatives under way with potential to improve the situation. The following section highlights six strategies (in the order of importance) as assessed by those interviewed:

1. Exposing High School Students to the College Experience
2. Incorporating Technology into the Learning Process
3. Prioritizing Teacher Training
4. Redesigning the High School Experience
5. Initiating Targeted Interventions
6. Adopting National Standards

Exposing High School Students to the College Experience

Nineteen of the interviewees named accelerated learning as one of the top methods of encouraging high school students to matriculate into college. Accelerated learning can take on several forms including Advanced Placement (AP), International Baccalaureate (IB), dual or concurrent enrollment, and early college.

Advanced Placement (AP) - A cooperative educational endeavor between secondary schools and colleges and universities that enables high school students to take college-level courses and national examinations developed by the College Board in a high school setting. If a student achieves a minimum score on these examinations (often a three or above), he or she may be awarded college credit, depending on the requirements of the postsecondary institution (Accelerated Learning Options 2006).

International Baccalaureate Diploma Programme (IB) - A comprehensive two-year international pre-university course of study that leads to examinations and an IB diploma. IB requires courses that cover languages, social studies, the experimental sciences and mathematics in order to prepare its students, normally aged 16 to 19, for success in university and beyond (Diploma Programme at a Glance n.d.).
Dual Enrollment – Dual enrollment programs enable high school students to take college courses that generally count toward both their high school diploma and college degree. They offer, administer and teach courses in partnership with a higher education institution. Students can take the course on their high school campus, travel to a local college or take the course online (depending on the arrangement with the postsecondary provider). Attainment of college credit is based upon student performance.

Early College – Early colleges are schools where students graduate with a high school diploma in addition to an associate’s degree or the two-year college credit equivalent. Early colleges are often physically located on, or adjacent to, a college campus. Some early colleges in more rural areas use online courses for their curriculum.

Outreach programs that increase college exposure – There are many other efforts that might not be as extensive as those listed above, but have great impact. For example, Baltimore County Public Schools offer the College Pathways Program whereby 30 tenth-graders in the middle bracket of their class are brought to the local community college campus for a day. “Students take a campus tour, engage in discussions on how college works, including college scheduling, and ask any questions they want. It really demystifies college,” states Ms. Sonja Karwacki, Executive Director of Special Programs for Baltimore County Public Schools (BCPS).

The University of Houston Downtown (UHD) offers many outreach programs to educate local community members about college. Many of their students are first-generation college-goers so UHD developed sessions to educate parents on how to best support their children as they prepare for college. UHD also offers mentorship and scholarships to at-risk students who maintain a GPA of 2.5 and above and stay in the top half of their class, as well as brings promising middle and high school students to the campus during the summer. It also assists mothers in homeless shelters with literacy skills and encourages them to obtain their GEDs. “In order to be successful, you have to work - not just with the students, not just with the teachers, but with the whole community,” explains UHD’s Flores.

Accelerated learning options benefit students and providers by:

- Offering the student greater educational challenges while in high school that might not be available otherwise
- Exposing students to the college experience, which can excite students about the possibilities of higher education while minimizing fears of college
- Proving to students and college admissions officers that a broad range of students can be successful in college-level courses
- Reducing the financial burden of a college education with no-cost or significantly discounted options to earn college credit
- Reducing recruitment costs for colleges because students who take a postsecondary provider’s courses in high school have an increased likeliness to attend the same institution for college
Current research underscores the success of these programs. The National Center for Educational Accountability found that an AP Exam score of 3 (the grade required to attain college credit) or higher is a strong predictor of a student’s ability to persist in college and earn a bachelor’s degree (Dougherty, Mellor and Jian 2006). Furthermore, Boston College researchers found that AP students who scored a 1 or 2—a score often too low for college credit—developed stronger content mastery of advanced math and physics than U.S. students who had not taken AP courses (Gonzalez, O’Connor and Miles 2001).

The Community College Research Center also completed an in-depth study comparing dual enrollment students to their non-dual enrollment peers in the state of Florida. The study found dual enrollment students:

- Are 4.3% more likely to earn their high school diploma
- Are 7.7% more likely to enroll in a four-year institution
- Are 4.5% more likely to persist to a second semester
- Are 5.4% more likely to be enrolled two years after graduating high school
- Achieve .21 points higher GPA than their peers
- Earn 15.1 more credits within three years of graduating high school (Karp, Calcagno, Hughes, Jeong and Bailey 2008)

Still, additional research is needed to confirm these results. There is conflicting research, which suggests that “AP courses do not substantially contribute to student success in college,” says Philip M. Sadler, Director of Science Education at the Harvard University-Smithsonian Center for Astrophysics and a Senior Lecturer in Astronomy at Harvard (Jaschik 2006). The College Board disputes Sadler’s conclusion. Additionally, some dual enrollment research focused on career and technical education had varying student demographics, which might suggest a selection bias.

2 Incorporating Technology into the Learning Process

The State Educational Technology Directors Association (SETDA), the International Society for Technology in Education (ISTE), and the Partnership for 21st Century Skills recently stated that “creating a 21st century education system requires broad and intensive use of technology and a strong technology infrastructure. Schools cannot prepare students to participate in a global economy without making intensive use of technology. In a digital world, no organization can achieve results without incorporating technology into every aspect of its everyday practices. It’s time for schools to maximize the impact of technology as well (Maximizing the Impact p. 3).”
Two main components of incorporating technology into the learning process include:

- **Data-based decision-making**
- **Teaching and learning technologies**

**Data-based decision-making**

Effective decision-making requires relevant data, but educators often lack access to longitudinal school and student performance indicators. “How can we expect the right policy decisions to be made when we don’t have the data?” asks Joel Vargas, Vice President, High School Through College - Jobs for the Future. “Policy makers need information on the performance of students over time in order to make decisions.” To address this setback, many states are creating state-wide data systems that can track and assess a student’s performance over time. These systems also improve education planning, management, reporting, instruction and evaluation. Roger Benjamin, President of the Council for Aid to Education, adds, “Data doesn’t mean anything if we don’t first understand what we are measuring. There needs to be a clear understanding of the desired outcomes and goals and then an assessment as to which best practices help attain these goals.”

Longitudinal data systems have the potential to track and assess a student from cradle to career, enabling educators to intervene early as evidence of inadequate performance accumulates, and to provide accurate answers to questions such as:

- **Which schools produce the strongest/weakest academic growth?**
- **What are indicators that a student is on track to succeed at the next level?**
- **Which students are most at risk for dropping out?**
- **Which schools do not consistently prepare students for the next grade?**
- **Which teacher preparation programs produce the most effective teachers?**
- **Which teacher skills and characteristics produce better student performance?**

The importance of data-based decision-making in education is recognized by the U.S. Department of Education. In 2002, the Department of Education created the Institute of Education Sciences (IES) to manage the Statewide Longitudinal Data Systems (SLDS) Grant Program. The data systems developed with funds from these grants should help states, districts, schools, and teachers make data-driven decisions to improve student learning, as well as facilitate research to increase student achievement and close achievement gaps. These competitive, cooperative agreement grants extend for three to five years and include up to nine million dollars per grantee. Based on the first three rounds of SLDS awards, 41 states and the District of Columbia have received at least one SLDS grant and 12 states have received two grants (Statewide Longitudinal Data Systems Grant Program n.d.)."
Building large-scale data systems presents challenges by forcing stakeholders who are accustomed to working independently to team together. Stakeholders include departments of education, school districts, community colleges, and public and private higher education institutions. States like Florida, Texas and Kentucky have proven to be leaders in this area.

In Kentucky, education leaders put their individual approaches aside and banded together to implement a longitudinal data system. “We in Kentucky share the vision of making our education system better,” states Terry Holliday, Kentucky’s Commissioner of Education. “To do this, you have to quit focusing on the interests of the adults—lawmakers, administrators, etc.—and start focusing on the interests of the kids and outcomes.” Al Lind, Vice President, Information and Technology for Kentucky’s Council on Postsecondary Education, adds, “Our P-20 data warehouse will track students from preschool to college to graduate school and into the work force. We received $2.9 million from the Department of Education to connect all student information systems—public schools, community colleges, public and private higher education institutions and the teacher professional standards board—in order to be able to accurately assess educational requirements.”

New York is also moving toward a state-wide data system. “New York does not have a state-wide P-20 longitudinal system yet, however we have made a commitment to such a system and just received a $20 million grant for implementation,” states Duncan-Poitier. “While this comprehensive system is under development, we are requiring that every new program we implement has built-in data indicators so that in the short-term we can track the success of that individual program, and in the long-term, we can tie that data into the state-wide system.”

Teaching and Learning Technologies

Technology has become a way of life, permeating all aspects of work, social interaction and, to a certain extent, higher education, but it has yet to pervade primary and secondary education. Not only is technology not widely used in K-12 education, it is often prohibited by some popular “leave it at the door” policies. In turn, it’s not surprising that all 24 interviewees stressed the effective use of technology as an integral component in ensuring a smooth transition between high school and higher education. Two primary means to achieve this goal, according to the interviewees, are the introduction of technology to enhance the classroom, as well as the existence of electronic content repositories to help teachers find, share and collaborate on quality materials. These efforts can be done on an individual school level or through virtual high schools and consortia initiatives.

TOP SIX STRATEGIES FOR CLOSING THE GAP

1. Exposing High School Students to the College Experience
2. Incorporating Technology into the Learning Process
3. Prioritizing Teacher Training
4. Redesigning the High School Experience
5. Initiating Targeted Interventions
6. Adopting National Standards
Cheryl Charlton, Chief Operating Officer of the Idaho Digital Learning Academy, shares that she often hears from graduates attesting to the benefits of integrating e-Learning technologies with their high school courses and how it helped ease their transition into college. “Colleges in Idaho all use e-Learning systems to enhance their courses and they expect their students to use the system starting day one to access course materials, assignments and sometimes even tests,” she says. “Having already exposed our students to e-Learning technologies provides students with a higher comfort level when starting college.”

Incorporating technology into an effective learning environment requires hard work and planning. In order to reduce the burden on teachers to create electronic content, many individual schools, consortia, and states create content repositories where electronic materials can be posted, shared and collaboratively developed. Kentucky, for example, recently launched their K-20 learning repository. “The repository provides one place where everyone throughout the state can create and store course content tagged with the common core state standards,” explains Al Lind, Vice President, Information and Technology, for Kentucky’s Council on Postsecondary Education. “Teachers can browse, search, upload, download, update, rate, and reuse animations, learning objects, textbooks and other quality learning content directly into their courses. We then took it one step further by federating the system with North Carolina, Georgia and Florida so we are able to share content in a single search.”

Two other solutions that expose students to in-classroom technology while minimizing the burden on individual school districts are virtual high school offerings and consortia. Florida Virtual School and North Carolina Virtual Public School (NCVPS) are two examples of strong, successful virtual schools in the U.S. Though there are many reasons people take virtual courses in high school, one of the more popular reasons is their ability to provide students with first-hand experience of the demands of virtual learning. “Florida Virtual School is able to provide students with access to advanced classes, teachers, and technology that many of our school districts cannot offer directly. This helps prepare them for the rigor and expectations of college,” explains Beth Miller, Manager of University Partnerships at Florida Virtual School.
Other educational institutions have found consortia to be a good way of enhancing e-Learning within their schools and capitalizing on idea sharing amongst a broader group. In order to meet its mission of serving the community, the University of Cincinnati (UC) fostered a relationship with six Catholic high schools. UC hosts the e-Learning technology, conducts professional development for the member institutions and facilitates collaboration and best practice sharing amongst the group. The real push for this arrangement came from the Cincinnati Archdiocese who saw the value of offering e-Learning technology to students, but knew they didn’t have the resources to do it on their own. “We all get together once a month to discuss issues, collaborate on content, and share best practices. This consortium has been working so well that we are now up to 14 member institutions spanning high schools, community colleges and state universities,” states Paul Foster, Assistant Director of Instructional and Research Computing at UCit, University of Cincinnati.

3 Prioritizing Teacher Training

The third most common strategy that interviewees identified to ease the transition between high school and higher education is providing teachers with the tools and support to actively participate in preparing students for college success.

The University of Houston Downtown has an extensive urban education program to prepare its teachers for the difficulties faced in urban schools. The SUNY system, comprised of 64 campuses, is now adding a similar urban education program. Programs like these, offered as a bachelor’s or master’s degree, are geared toward stronger practice-based teacher education in order to produce effective teachers for urban and rural areas. “The SUNY system prepares over 5,000 teachers each year which equates to 25% of the teaching workforce in New York,” says Duncan-Poitier. “Given how many teachers we educate, we feel obligated to make sure that they are the best prepared, and given the expected number of teachers that will be cut from the NY budget, we want to be in a position to provide the highest quality professional development for teachers already in our schools.”

Every institution interviewed provides professional development, but the most successful have an overarching vision with a clearly articulated plan containing measurable goals that drive professional development programming.
There were several unique professional development efforts discussed:

- **Partnering to improve the high school curriculum.** The California Community Colleges teamed with California high school teachers to jointly review the high school curriculum from a perspective of college-readiness.

- **Ensuring faculty are in touch with the student experience.** The California Community Colleges created a Faculty Inquiry Network. “The Faculty Inquiry Network puts research in the hands of faculty as to how students are doing. We take a lot of videos of students asking them what they are experiencing, what is hard for them, etc. and then follow them throughout a few semesters to see how they develop. This helps faculty understand more clearly how students perceive their experience and helps the faculty judge the effectiveness of their techniques,” shares Barry Russell.

- **Externships for faculty.** Baltimore County Public Schools partnered with corporations to offer their teachers an opportunity for a summer externship which enables teachers to bring back real-world experiences to the classroom.

Although those interviewed pointed specifically to teacher professional development as a means of closing the gap between high school and college, the larger issue of overall teacher quality remains critically important. Teacher quality is influenced by professional development, but also by factors such as years of experience, teacher compensation, licensing, and degrees (Rarick et al. May 2007).

### 4 Redesigning the High School Experience

According to Christopher Dede, a professor at the Harvard Graduate School of Education, “Students are better engaged and learn more deeply when they are taught in the context and environment where that learning normally occurs, such as solving a real-world problem.” To this effect, there are many efforts to reevaluate how high school teachers can provide a more organic experience for students. The result is a number of efforts - varying from a redesign of a traditional high school curriculum to the creation of charter and cyber schools.

Five years ago, the Baltimore County Public School System was facing a tough situation with Chesapeake High School, located in one of the county’s poorest areas. Students weren’t attending class and were dropping out at high rates so the county decided to try a different approach. They partnered with Lockheed Martin, Johns Hopkins University and the gaming industry to create an environment that used gaming accompanied by traditional lessons to engage students. “Five years ago the school was failing,” states Sonja Karwacki, Executive Director of Special Programs for the Baltimore County Public Schools. “Now, students are embedded in a virtual world. Attendance has improved, AYP (adequate yearly progress) has increased, and we have tripled the number of magnet students attending the high school.”
Initiating Targeted Interventions

Several interviewees cited the short-term value of assessing the college-readiness of high school students while there is still time to intervene with the long-term goal of a cumulative process that starts with early learning. For example, California augmented its eleventh-grade standardized test with 15 questions in English and math and an essay-writing component to determine the students’ college-readiness in these subjects. Students take the test in the spring of their junior year and the results demonstrate college-readiness. “The augmented California standards test, or Early Assessment Program (EAP), is a great way for students to know whether or not they are ready for college prior to graduating high school,” states Linda Michalowski. “If they aren’t ready, there are resources available to help them get up to speed including the California State University’s (CSU) Expository Reading and Writing Curriculum, online ALEKS math modules, and other interventions being piloted between community colleges, CSU, and high schools. The goal is to assist students who are not demonstrating readiness on the EAP to strengthen their skills prior to their high school graduation and entry into college.”

The Superintendent of Baltimore County Public Schools pays for all ninth- and tenth-graders to take the PSAT as a means of assessing their readiness for college-level courses. Students with high scores are then encouraged to take challenging AP and honors courses.

In Kentucky, the state pays for all students to take the ACT to test for college readiness. If they score well, they are also encouraged to take advanced courses like AP, honors, and dual enrollment. If they don’t, the state works to identify areas of weakness and strengthen skills in these areas prior to graduation.

Adopting National Standards

The majority of interviewees believe that national education standards would benefit students and educators alike. As noted earlier, there are significant discrepancies between state graduation requirements, and they consistently fall below college entry-level requirements. Moreover, only 25 states currently administer high school exit exams, which suggests that the remaining 25 experience discrepancies within the state.

States need to agree on educational standards for graduation from each grade, and ensure these standards are in alignment with the entry requirements for higher education. Fortunately, there are promising projects underway, including the American Diploma Project (ADP) Network and the Common Core State Standards initiative.
Leadership with a K-20 Vision

All 24 interviewees agreed that strong leadership with a clearly articulated vision for 21st century learning is a primary component to successfully implementing a solution. These visionaries go beyond the traditional methods to educate students and teachers.

“Legislative decisions are one of the fastest ways of impacting the greatest amount of change,” states Dr. Bryan Setser, Chief Executive officer, North Carolina Virtual Public School. “North Carolina, through legislative support, was able to create a portfolio of focused, research-based options in the e-Learning space in a short amount of time. This provides options for students and educators, and helps those across the state make smart choices around technology infrastructure, curriculum, assessment, and professional development.”

Although legislation is one of the most impactful ways of inducing change, it’s not the only way. There are many leaders at institutions clearly articulating their vision and making it a reality. SUNY Chancellor Nancy Zimpher and her team, for example, created the “Power of SUNY,” a strategic plan that outlines the system’s top six initiatives including a “Seamless Educational Pipeline.” It calls for SUNY to partner with other educational institutions throughout the state to strengthen the education pipeline from birth through retirement and close the gaps that can impede success. The Chancellor also created the executive cabinet level leadership position of Chancellor’s Deputy for the Education Pipeline—a unique position in higher education—to develop and lead these efforts.

Equitability and Accessibility

Non-white and lower income students who reside in rural and poorer communities are at the greatest disadvantage. These students often do not have access to more advanced courses or easy access to college campuses. To improve graduation rates, a high-quality education must be accessible to all students regardless of geography and demography.

Bill Fritz, Director of Technology for Sycamore Community Schools explains, “Ohio has 612 districts – some with as few as 600 students, and some with as many as 10,000 students. The smaller schools struggle with finding the people, technical expertise, and money to afford educational solutions like those in the more affluent and larger districts.”

As noted earlier, graduation rates for minorities fall well below the national graduation rate, yet some of these groups have the largest growing populations. “We will have a skilled labor shortage of more than 25 million workers by 2030, but we have a massive decline in college-age students, states UHD’s Flores. “The largest growth in the college-age population is Hispanics. We have to meet their needs.”

Short- and Long-Term Success Metrics

Changing the education system is clearly a difficult task and making a significant impact will take time. In order to ensure all parties remain focused and optimistic, it is important to implement success measurements, both short-term and long-term, to showcase progress.

“When you are growing so quickly, you have to make sure you have a framework with policies, procedures and success metrics so you stay on the right path and keep those involved motivated,” states Cheryl Charlton.
Scalability and Replicability

Programs must be scalable and replicable to result in large-scale improvements to the education system. Interviewees shared these effective practices that can help educators meet the needs of diverse learners:

- **Document the strategy, people involved, processes, and lessons learned.** This is one of the primary focuses of Baltimore County Public Schools, which seeks to share lessons learned with the rest of the state.

- **Use technology to encourage replication and collaboration.** By creating systems where content can be reused, such as the use of open educational resources and other online tools and databases, educators can capitalize on work done by their peers.

- **Identify the top three components critical to the success of a strategy.** Cheryl Lemke, President and Chief Executive Officer of the Metiri Group, suggests identifying the three core components of a successful strategy, and requiring that these components become part of the solution. Smaller-scale decisions can then be left to the group that’s implementing the strategy. This process provides educators leeway to customize the solution to their particular needs without diminishing the strength of the solution.

Sustainability

“People get grants to do great things and then the grant money runs out and that great thing is over. This happens all the time and we cannot afford for it to happen now,” explains Flores. “Start-up funding is often needed to get projects off the ground. But a critical component to keeping projects afloat is building a plan for sustaining the model beyond the initial funding, as well as seeking alternative funding sources in case there are unexpected decreases like the recent budget cuts.”
THE GAP BETWEEN HIGH SCHOOL AND COLLEGE:
CONCLUSION

The demand for highly skilled workers continues to increase, but the percentage of students graduating with a college degree is decreasing. One of the largest gaps in the educational pipeline is between high school and higher education: only 18% of ninth-graders will graduate with a postsecondary degree.

Though this statistic is discouraging, educators are working to rethink the system. In this report, 24 experts and leaders identified several successful strategies—including exposing high school students to the college experience; incorporating technology into the learning process; prioritizing teacher training; redesigning the high school experience; initiating targeted interventions; and adopting national standards—to smooth students’ transition to higher education. By implementing these strategies in a way that is sustainable, scalable, replicable, measurable, equitable and accessible, leaders with a K-20 vision can help close the gap between high school and college—and return America to the top of the class.

About the Blackboard Institute

The Blackboard Institute draws from Blackboard’s global community to surface and share actionable, practice-driven guidance on how education institutions are leveraging technology to build better education experiences.

For more information on effective practices that improve student progression, please visit www.blackboardinstitute.com.
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