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MEMORANDUM

DATE: March 1, 2011
TO: TechMIS Subscribers
FROM: Charles Blaschke, Blair Curry, and Suzanne Thouvenelle
SUBJ: Policies and Trends Regarding College Readiness/Remediation Niche Market

The enclosed special report on policy and funding trends in the college readiness and completion/remediation niche market is our first attempt to compile various trends and policies that suggest increased opportunities in this niche market at both the high school and college level. Coverage of this topic in the education media over the last six to eight months has grown exponentially reflecting a new Obama policy priority. While some “consistent” longitudinal data exists, various interpretations have been made by different advocacy groups and should be viewed with guarded skepticism. While we have not attempted to reconcile any interpretation differences in estimates from different groups, we have provided source information for market analysts to probe in greater detail if they so desire. On the other hand, “eye ball” analysis of the magnitude of certain data sets point to new opportunities for firms with certain products and services.

This document was prepared in the midst of the 2011 Federal education budget battle between the Obama Administration and the GOP Congress on Capitol Hill. While we realize that increased Administration policy priorities can be undermined by budget cuts and/or postponements under certain programs, we do believe that the final funding outcomes still point to expanded opportunities and increased demands for certain products and services in the near future. In addition to Title I, SIG, and IDEA niche markets, we plan to expand our TechMIS monitoring analysis and reporting in the future to the college readiness/remediation niche market. Please call me if you have any questions.

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Special Report:
**Policy and Funding Trends Point to Expansion of College Readiness
and Completion (College Remediation) Niche Market which Could
Provide Expanded Opportunities for TechMIS Subscribers**

A Technology Monitoring and Information Service (TechMIS)

SPECIAL REPORT

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New policy priorities and funding trends suggest increased growth in the demand for appropriate products and services in the expanding college readiness and completion niche market, at both the upper K-12 as well as college levels. New Federal priorities have significantly increased funding at the high school level not only to increase graduation rates, but also to ensure student readiness for college through such programs as School Improvement Grants, Title I, and Promise Neighborhoods, among others. New Federal priorities have increased Pell grant funding to improve access to college, especially for low-income minority students. Federal initiatives, combined with foundation support (e.g., Bill & Melinda Gates), are under way to increase college completion rates through student academic and other support activities, all of which are designed to increase college graduation rates to the goal of 60% by 2020. This report identifies some of the major trends that are likely to continue in the near future and which could provide opportunities for many TechMIS subscribers along the way.

As described in TechMIS reports over the last several years, among the issues of growing importance are the cost of college remediation and the amount of college costs, primarily to states, which are allegedly wasted when first-year students dropout.

Costs of Dropouts and Remediation

The Alliance for Excellent Education (AEE), in its Issue Brief entitled “Paying Double: Inadequate High Schools and Community College Remediation” (August 2006) estimated that the cost for providing college remediation for entering freshmen include about \$1 billion in state and local allocations to college, estimated tuition costs of \$283 million, and other costs of \$156 million, bringing the total to about \$1.4 billion spent annually on college remediation. The Alliance also identified the amount of annual remedial savings by some states if such remediation were not needed, citing examples of approximately \$135 million in California, \$100

million in New York, and \$88 million in Texas.

In a subsequent report, the Strong American Schools project (2008) estimated that the total costs of remediation to colleges and universities is between \$2.3 and \$2.9 billion during the 2004-05 school year, with the average per-student cost of remediation assumed to be between \$1,600 and \$2,000 at two-year colleges and between \$2,000 and \$2,500 at public four-year institutions. The two principal sources of revenue were between \$1.5 and \$2.0 billion in “subsidies” which included state and local appropriations, which AEE estimated was almost \$1 billion. The SAS report estimated that higher education spending on remediation for low-performing students “represents only about two percent of all expenditures.” Ironically, it notes, “In fact, many universities earn a profit on remedial classes. Students typically pay to enroll in remedial courses, just as they would in any college course, and researchers have cited several studies that indicate that colleges generate revenue from the classes.” (See September 30, 2008 TechMIS issue)

In a September 2009 Education Next article, “The Cost and Benefits of Remediation,” Mark Bauerlein questions the cost and effectiveness of college remediation and refers to the 2008 Strong American Schools report which found 43 percent of all two-year public college students were enrolled in a remedial course, as were 29 percent of all four-year public college students. He cited evidence that, “...40-50 percent will not complete the developmental sequence” and, if they do get beyond remediation, “...only 29 percent will earn a bachelor’s degree. That means that overall ‘any student who places into developmental education has only a 13 percent of eventually receiving a bachelor’s degree’....All that work of remediation, and only 1 in 8 students eventually receives a bachelors degree. That kind of performance can’t continue, especially in a belt-tightening era.”

A more recent report from the American Institutes for Research (October 2010), entitled “Finishing the First Lap: the Cost of First-Year Student Attrition in America’s Four-Year Colleges and Universities,” estimated that between 2003 and 2008, “States appropriated almost \$6.2 billion to four-year colleges and universities to help pay for the education of students who did not return for a second year....States gave over \$1.4 billion and the Federal government over \$1.5 billion in grants to students who did not return for a second year.” The estimates did not include two-year colleges, part-time students, or returning students. AIR noted other limitations: “our estimates are only a fraction of the total costs of first-year attrition the nation and the states face.” The report also notes that state allocations to four-year colleges and universities approach \$10,000 per student per year, with the average higher in some states, and that “These costs are mounting, even as state treasuries are running dry.” Increasingly, state legislatures refer to the cost of college attrition as “wasted taxpayer dollars.”

In January 2011, ACT Inc. released data from its annual survey of more than 2,500 colleges and universities on retention rates over the last 27 years. The overall 2010 retention rate of first-year, full-time freshmen returning to the same college/university the second year was about 67 percent, compared to 68 percent in 2005. According to a detailed breakdown provided the *College Bound* blog on EducationWeek.com (January 24, 2011), the retention rate in public two-year colleges was 56 percent in 2010, the highest in 27 years according to ACT, up from 54

percent last year. According to Education Week, ACT officials attributed the high retention rate among community college students to the lower costs to take career programs which are “responsive to the marketplace -- which is appealing in this down economy.”

A recent poll conducted by Associated Press/Stanford University reported on EducationWeek.com (December 9, 2010), on first-time student attrition noted that, among first-time students who entered public four-year colleges in 2003-04, less than half had earned a degree or credential within six years, a graduation rate which was slightly worse than students who started in 1995-96. This poll placed the blame for these low graduation rates: seven in ten respondents said that students shoulder either a great deal of the blame; 45 percent blamed parents; between 25 and 32 percent blamed college administrators, professors, unions, state education or Federal officials.

In October 2010, during the White House Summit on Community College, President Obama stated that community colleges are the “unsung heroes of America’s education system. They may not get the credit that they deserve. They may not get the same resources as other schools. But they provide a gateway to millions of Americans to good jobs and better life.” Over the last year and a half, the Administration has proposed a number of initiatives as noted below.

The most recent Association of American Publishers (AAP) report on 2008 and 2009 sales of all college products by the five largest publishers (Cengage, John Wiley, MacMillan, McGraw-Hill, and Pearson) reported that sales of “non-print only” products increased between 2008 and 2009 by almost 25 percent compared to 12.5 percent increase for “print only” products. Online course products sales increased by 38 percent and those of other Internet-based products, almost 55 percent. In terms of subject matter categories, sales trends by subject category reported by the five companies, showed that the highest percentage (8.5 percent) of sales were for “English materials,” totaling \$320 million of which “other English,” as opposed to “English literature,” constituted \$275 million compared to “other English” sales in 2008 of \$222 million. The Association of American Publishers (AAP) reported that 2009 sales, to colleges and universities, for the five largest publishers, were reported in two categories. Mathematics comprised about \$410 million, of which \$350 million was “mathematics excluding statistics,” the math most likely used in developmental/remedial courses. English sales were \$320 million of which \$275 were “other English” (likely used in remediation), as opposed to English literature.

Profile of Students Needing Remediation

A number of reports have attempted to identify characteristics or profiles of types of students needing college remediation, as well as the needs and characteristics of college dropouts. As we reported in October 2006, more than 40 percent of first-year students at community college and 20 percent of freshmen at four-year institutions were enrolled in at least one remediation courses -- about one-third of all entering freshmen. According to the AEE Issue Brief, of college freshmen taking remedial courses, 35 percent were enrolled in math, 23 percent in writing, and 20 percent in reading. One-third of the freshmen taking remedial courses were 19 years old or younger.

In a presentation before the Education Commission of the States National Forum in July 2009,

Professor Tara Parker, from the University of Massachusetts, Boston, reported that 40 percent of enrollees in remedial courses were from rural schools versus 38 percent from suburban schools, and 52 percent were from urban high schools (the total adds to more than 100 percent because of students taking more than one remedial course). Not unexpectedly, more than 50 percent have a low socioeconomic status; however, 46 percent took “academically rigorous high school” courses. The AEE 2006 Issue Brief also noted that some students classified as “freshmen” were laid-off workers seeking retraining and older students, as well as English language learners, who were seeking refresher courses or “re-education.” It also notes that recent high school graduates are more likely to take remedial courses because higher percentages of them are pursuing Bachelor’s degrees, which require specified levels of preparation, than are older students. Moreover, younger students are more likely to be enrolled as full-time students. Many colleges do not require part-time students to enroll in remedial courses; these part-time students enroll in less rigorous courses and are not consequently required to enroll in developmental courses.

As we reported in our TechMIS October 2006 issue, NCES reported that only 17 percent of students who enrolled in the remedial course received an AB or BS degree within eight years, compared to almost 60-70 percent of students who take no remedial courses graduate with degrees. AEE called the need for remediation the leading indicator of students dropping out of college.

K-12 Policies to Reduce the College “Readiness Gap”

As a result of new legislative provisions in the ARRA stimulus bill and USED regulatory changes, the Obama/Duncan Administration has redirected significant new and existing Federal funding to a number of initiatives which enable or target directly “college readiness.” At a symbolic level, the Administration has proposed renaming the ESEA Title I program as “College and Career Readiness,” connoting the redirected priority to upper grade levels, particularly high schools -- the goal of the proposed ESEA reauthorization (White House Fact Sheet, January 25, 2011).

From a funding perspective, the major new effort has been directing states to allocate School Improvement Grant, Part G funding to high school “dropout factories.” Indeed, USED recently announced that, in 44 states, 48 percent of the 730 Tier I and Tier II schools which received first round funding under SIG Part G grants (\$3.5 billion over 3-4 years) were high schools with 21 percent being low-achieving middle schools, which are often feeder schools to the lowest-achieving high schools. This redirection required both legislative changes (which were made in December 2009) and changes in regulations published in late October (see November 12, 2010 [TechMIS Special Report](#)). These changes allowed high schools, which would have been eligible to receive Title I funds but which have not been allocated funds by districts, to be eligible (and encouraged) to receive Title I and School Improvement Grant funding. In addition, the state could select as a Tier II school, a high school that has had a graduation rate that is persistently below 60%. Approximately 65 to 70 percent of the \$3.5 billion under the School Improvement Grant program will likely continue to be allocated to high schools.

The American Graduation Initiative and Promise Neighborhoods -- particularly the latter -- are designed to reduce the college readiness gap for low-income and minority students. The

Administration proposed significant increases in such funding (e.g., from \$10 million in FY 2010 to \$210 million proposed for FY 2011 for Promise Neighborhoods). The so-called Striving Readers program, funded at about \$300 million in FY 2010 would have received slightly more funding under the Administration's proposed budget; at least 40 percent will be allocated towards adolescent literacy programs for students in middle and high schools.

To expand college readiness will require K-12 schools to reduce the so-called "readiness gap," which is addressed in detail by the Southern Regional Education Board (SREB) and the National Center for Public Policy and Higher Education in a report entitled "Beyond the Rhetoric: Improving College Readiness Through Coherent State Policy" (June 2010). According to the report, every year "nearly 60 percent of first-year college students discover that, despite being fully eligible to attend college they are not academically ready for postsecondary studies." The readiness gap is largest in the "less selective" and "non-selective" college institution segments which has open admissions or requiring only a high school diploma; these two sectors serve between 80-90 percent of undergraduates in public institutions and "need remedial work in English, mathematics or both." The National Center and SREB identify a number of reasons why the readiness gap exists, including:

- P-12 and postsecondary expectations are disconnected;
- traditional readiness assessments do not measure college readiness;
- schools and teachers are not accountable for teaching to college readiness standards; and
- colleges are not accountable for degree completion.

However, the report states, "Most states are actively working to improve college readiness... Many states are also engaged in the effort to develop Common Core State Standards as a basis to improve readiness and postsecondary attainment." The report includes a model reform agenda for reducing the readiness gap which includes a number of activities that could provide opportunities for technology vendors including:

- the adoption by P-12 and postsecondary institutions of college readiness standards for reading, writing, and math which are "the cross-cutting, fundamental building blocks of knowledge for all other disciplines";
- the use of high school assessments aligned with state adopted standards, such as through the use of end-of-course exams tied directly to a state's readiness standards;
- inclusion in the public school curriculum of programs such as a supplemental curriculum in the twelfth grade to help students who, based on eleventh grade assessments, are not on track to be college ready.
- Teacher development, especially for teachers of twelfth grade supplemental readiness courses; and
- adoption by college and universities of readiness standards for placement.

While P-12 schools should be held accountable for ensuring high school graduates are college ready, post-secondary education should be held accountable for increasing the portion of remedial students who transition into college courses and the portion of all students who complete college programs for credentials, degrees, or additional degree work.

The SREB report also suggests a number of indicators that point to states which would be

considered leaders in the area, such as:

- translating readiness standards into specific performance level expectations;
- strengthening school accountability systems to measure, report, and emphasize improvements in college readiness; and
- preparing prospective teachers to teach to college readiness standards.

In its most recent annual survey of states regarding progress on key college and career readiness policy, Achieve (February 2011) reported that 44 states and the District of Columbia, all of which adopted Common Core Standards in 2010, and three additional states independently have developed standards aligned with college- and career-readiness expectations; this is up from 31 states last year. Twenty states and the District of Columbia “have established requirements that all high school graduates must complete a college- and career-ready curriculum that includes at least mathematics through the content typically taught in an Algebra II course (or its equivalent) and four years of grade-level English to earn a high school diploma.” Closing the Expectations Gap 2011 notes that the remaining 27 states that have adopted college- and career-ready standards have not yet raised their graduation requirements to ensure that all students meet those expectations.

Two recent reports (see TechMIS Washington Update January 2011) from the Center on Education Policy have identified a promising trend, but also challenges to reducing the readiness gap. In its ninth annual survey of state assessments, CEP found rapid expansion in the use of end-of-course exams prior to graduation. While only two states had end-of-course tests as part of state exit exams nine years ago, the number of states requiring student passage of EOC exams has increased to seven over the last year, and an additional ten states will begin phasing in or plan for EOC exams in the near future. Six other states administer EOC exams, but do not require passing scores for graduation. This brings to a total of 23 states that are currently administering, or planning to administer, state developed EOC exams. As CEP states, “The Education Testing Service, Pearson Education, Inc. and the College Board (2010) suggest that education stakeholders often prefer EOC exams to comprehensive exams due to a number of advantages. Because EOC exams can be more closely aligned with curriculum and instruction and are typically administered closer in proximity to when the curriculum is taught, proponents consider these exams a more accurate assessment of student knowledge and therefore able to more directly inform curriculum development. Additionally, the College Board reports that EOC exams can be aligned to college-level courses and possibly used as placement or pre-qualification for college.”

Another recent CEP report on the progress and challenges in implementing the Common Core State Standards, identified the main goals of CCSS as ensuring high school students graduate with the knowledge and skills needed to succeed in college. This CEP survey addressed the types of changes which are likely to be required in higher education policy and practices to implement the standards fully. Only seven of the 43 SEA-level respondents reported that they plan to align their state’s first-year undergraduate core curriculum with the CCSS and only eight plan to align undergraduate admission requirements with the CCSS. In 25 states, respondents did not know if these changes would be implemented, with three or four saying such changes would not be made even though the Obama Administration has placed a high priority on them,

and proposed funding increases for such efforts to reduce the college readiness gap. This suggests that progress in reducing the need for college remediation will take time and that districts might redirect increased Federal remediation funding to other areas such as transitioning students from eighth to ninth-grade and providing continuing supplemental instruction/support through graduation.

New College Priorities and Funding

Under the Obama administration, one of the highest priorities has been, not only to increase funding to provide greater access to college for low-income minority students, but also to provide the necessary support for college completion. A major funding priority has been through the Pell Grant program. Although the final FY 2011 appropriations bill is still in Congress and the Government is operating under a Continuing Resolution (CR) in which most other education programs are level-funded, the current CR -- through March 4th -- provides for a maximum of \$5,550 per student for college enrollment, up from about \$4,860 two years ago. The *College Bound* blog (January 3, 2011) on EducationWeek.com, cited an article published in the *American Education Research Journal* (Paul Attewell, et. al.) which explored what helps students finish college; it reported that, for students at two-year colleges, “receiving financial aid is the strongest predictor of finishing a degree. By contrast, at four-year institutions, the amount of aid had a smaller impact the research shows.”

A policy brief by the Education Commission of the States (2010) on college remediation noted, “Although financial aid policies for remedial courses vary from state to state, according to a 1997 report by the General Accounting Office, no more than 4% of the financial aid granted to freshmen and sophomores paid for remedial courses.” The ECS policy brief also notes that a 1996 NCES study reported that, while 81 percent of four-year institutions offer remediation, the cost of remediation accounts for less than one percent of the total higher education budget. As noted earlier, Strong American Schools (SAS) reported the current number to be two percent. Under the Obama Administration’s priority of providing low-income minority students greater access to college and college completion through additional funding, one might expect a higher percentage -- than the four percent reported by ECS -- of the current Pell Grant funding to be used for some types of academic remediation or student supports.

Another new Federal government infusion of funds to colleges for remediation is the post-9/11 new GI Bill for returning Iraq/Afghanistan veterans. In August 2009, the new GI Bill went into effect allowing up to \$1,200 per gulf war veteran to cover the cost of tutoring for up to 12 months. In August and September 2009, more than 900,000 returning veterans completed applications to enroll in college, the cost of which would be covered by the new GI Bill. But, during the first two months, fewer than 50,000 applications were processed (see October 2009 [TechMIS Washington Update](#)). According to a December 2010 Senate Report, approximately \$1.75 billion of GI benefits, in the form of tuition and fees, was provided to post-secondary institutions in 2009. Although Veterans Affairs (VA) or other official estimates are not available on the amount of such funds used for remedial tutoring, a new study released by the Education Trust examined the scores of nearly 350,000 high school graduates, ages 17 to 20, who took the military entrance (ASVAB) examination between 2004 and 2009. It found that only half the applicants scored high enough to join the Army. The report also notes that in a recovering

economy, the pool of potential recruits meeting entry-level education requirements could decline as it did during the mid-1960s when the Defense Department created Project 100,000 which was designed to allow low-achieving, low-income young adults to enter the service; once in, they were required to take remedial courses to meet the various performance levels (e.g., reading manuals) to remain in the service.

One of the most important trends pointing to expansion of the college “remediation” niche market is the continued growth in online delivery. A recent report from Ambient Insight, reported in THE Journal (January 20, 2011), projected that, by 2015, pre-K-12 academic institutions will spend \$4.9 billion on self-paced electronic learning products and services; this represents a 16.8 annual percent growth from 2010 spending levels which will outpace growth in higher education. More than 10 million students will participate in some amount of online supplemental instruction by 2015 up from 2.9 million in 2010. The growth is attributed to the economy, state budget cuts, and schools shifting budgets from programs like classroom-based summer credit recovery to self-paced courses.

As noted earlier, college remediation was one college “segment” in which distance learning began to take off two decades ago. Many reports from the Sloan Consortium (see May 2009 TechMIS Washington Update) and iNACOL have reported that the use of online delivery for “credit recovery” programs has increased much faster than traditional areas such as advanced placement. There appears to be an increasing “crossover” between colleges and K-12 districts. The percentage of districts reporting four or more online providers increased from 28 percent in 2006 to almost 39 percent in 2008, with 47 percent of K-12 districts indicating they used post-secondary institutions as online course providers for fully online courses.

USED found that in 2006, more than 500 colleges and universities provided distance learning services for K-12 school districts. As reported in Inside Higher Education (April 6, 2009), a national survey of community colleges found that distance learning enrollments grew by slightly over 11 percent between the fall of 2006 and the fall of 2007 and that 20 percent of distance offerings were purchased from publishers or other content providers. Some of the recent largest percentage increases were in “online tutoring assistance,” and the percentage of colleges planning to offer “online tutoring assistance” is expected to increase from 60 percent to more than 80 percent. In terms of the expansion of online delivery in community colleges versus four-year institutions, the FCC has called for a number of changes (e.g., increased net neutrality) which can provide for growth in the broadband infrastructure. As noted in eSchoolNews article (December 21, 2010), according to statistics released last year by the FCC, only 16 percent of the 3,439 community college campuses in the U.S. have access to the kind of high-speed Internet service that is available to more than 90 percent of research universities.” As broadband and other infrastructure components expand in community colleges, one might expect at least a proportional increase in the number of online services being offered, especially including online delivery of remediation and support services.

The Administration has put forth a number of recent proposals, building upon the general expansion of online delivery, to use online delivery instructional support to increase college completion; however, a number of challenges have yet to be overcome. For example, the

American Graduation Initiative and Open Learning Initiative, which were initially included as part of the major Health Reform Act but later dropped by Congress, would have provided \$12 billion to increase community college graduation rates. The total included about \$50 million a year for ten years to develop online skills courses under the so-called Open Learning Initiative. Even though funds were not appropriated, the Administration is likely to continue to support such an initiative which would increase the rate of growth of online delivery in the remediation niche market, but could be at the expense of some private sector firms including publishers of online instructional materials because of “open source conditions” (see October 5, 2010 TechMIS).

However, the final Health Reform Act still provided \$2 billion for the development of career training programs through 2014 to ensure community colleges, including consortia, would receive slightly over \$2 million in each state. On January 21st, Secretary of Education Duncan and Secretary of Labor Solis announced the availability of the \$2 billion, four-year community college initiative which is designed to expand the use of evidence-based or innovative strategies to prepare students for successful careers by accelerating progress and reducing time to completion, to improve retention and achievement rates, and to strengthen online and technology-enabled learning. While Secretary Duncan noted for-profit institutions are “welcome” to apply, any products developed under the grants must be made available freely to the public. SIIA recently noted that the narrow focus on content/course development and the Creative Commons license for free web-enabled delivery was not specified in the authorized legislation.

The infusion of post-9/11 GI Bill funds will certainly fuel expansion of online delivery of courses including remediation; yet some challenges are already surfacing. As we reported in our August 2008 TechMIS [Washington Update](#), Veteran Affairs officials anticipated that a large percentage of returning Gulf veterans would likely enroll in colleges which offer the most “convenience;” Keith Wilson, VA Director of Education equated “convenience” to online delivery of courses, including tutoring, especially in for-profit institutions. As reported in the December 8th [New York Times](#), more than 36 percent of the tuition and fee payments in the first year of the Gulf Veterans GI Bill program, or about \$640 million, went to for-profit colleges like the University of Phoenix and other online institutions which are, for the most part, for-profit firms. As the article notes, “But high dropout rates at some of these colleges, difficulty in transferring credits, higher tuition bills than at public colleges and skepticism from some employers about the value of the degrees are all creating unease among some in Congress.” In December, Senator Tom Harkin, Chairman of the Senate Committee overseeing Federal education policy said, “For-profit schools see our active-duty military and veterans as a cash cow, an untapped profit resource.” The same article notes there are no public data available on the dropout rates among Gulf War veterans thus far. A report by the Education Trust found that, in 2008, only 22 percent of first-time, full-time bachelors degree students at for-profit colleges nationally graduate within six years, compared to 55 percent at public institutions, according to a November 23, 2010 [New York Times](#) article.

In addition to the post-9/11 GI Bill, the Defense Department (DoD) has also undertaken

initiatives to provide remediation tutoring for enlisted personnel on active duty; perhaps this is in anticipation of having to enlist in the future more volunteers with lower academic levels as the economy recovers. In late 2010, DoD awarded a \$10 million plus contract to Tutor.com to provide such tutoring for military personnel, relying heavily on online delivery. Since the middle of the last century, DoD has periodically conducted some of the most stellar research and development on preparing enlisted personnel to perform duties requiring higher levels of academic proficiency in reading and math. This has resulted in the creation and/or refinement of a number of programs which have been commercialized, such as Plato Learning, among others.

Another challenge is determining the mix of academic core competencies and skills that are related to success in college. A number of reports have also identified some of the weaknesses in which remediation needs to focus. In its 2004 report, NCES identified weaknesses of core skills, including basic study habits and the ability to understand and manage complicated materials. Among numerous articles, reports, etc., identifying these academic factors, ACT in its 2010 report on college-readiness “Mind the Gaps” summarized a number of factors based on its years of research and concludes that the following factors are directly related to college success: college readiness (defined as meeting ACT’s College Readiness Benchmarks”), taking the ACT-recommended core curriculum in high school, and taking additional high school coursework beyond core in math and science. In the area of mathematics, the report states, “In addition, students who take the Algebra I, Geometry, and Algebra II are less likely to require remedial coursework in mathematics than students taking less than these courses (by 14-18 percentage points across states). Moreover, students who take higher-level mathematics courses beyond Algebra II are two to three times less likely to need remedial coursework in mathematics than students taking Algebra I, Geometry, and Algebra II.”

In another widely-cited report, David C. Conley, of the Education Policy Improvement Center (EPIC) at the University of Oregon, identifies components of a comprehensive definition of college-readiness, including key cognitive strategies, academic knowledge and skills, academic behaviors, and contextual skills and awareness. While there seems to be some agreement on what constitutes college-readiness based on the ACT, among Conley and other highly-regarded researchers, there still remains a question of what types of remediation work best with what types of students under what working, financial, and other conditions.

Gates Foundation Initiatives

Several new initiatives have attempted to address some of these issues in depth. One of the largest is spearheaded by the Bill & Melinda Gates Foundation which over the last year or so has increased significantly the amount of funding to seek answers to some of these questions and, when best practices are found, how to take them to scale. Over the last several years, the Bill & Melinda Gates Foundation, directly or working through consortia/associations, has committed \$100 million to “dramatically improve the effectiveness of remedial programs so more Americans can obtain the degrees necessary to land good jobs and keep our economy strong.” According to the Foundation’s website, “Instead of marginalizing remedial programs we must make them a priority and apply innovative approaches to dramatically improve students’ success rates.” To this end, the Foundation has invested:

- more than \$16 million in *Achieving the Dream* to identify and support promising work in remedial education done by 15 community colleges;
- \$7 million under *Gateway to College* which provides a credit-recovery program for high school dropouts who simultaneously earn credits toward an Associate's degree at local community colleges;
- \$2.7 million for the Academy of College Excellence at Cabrillo Community College designed to bridge the gap for young adults.

In October 2010, the Gates Foundation announced a new \$35 million initiative to increase the adoption of proven technology and related practices to improve college readiness and completion, particularly among low-income adults. The first RFP, announced through operating partner groups including EduCause and the League for Innovation, among others, would provide approximately \$20 million in projects, each worth \$250,000 to \$750,000, designed to:

- foster adoption of blended learning models;
- improve learning analytics for students and instructors to improve student success; and
- develop high-quality modular, openly-licensed core coursework to improve student achievement.

Similar to the i³ program conducted by USED, provisions in the Gates RFP provide for limited direct participation for private firms but rather encourage them to “join teams”; however, because of the call for open-source accessibility, limited copyright protection could self-limit many private sector participants.

As we reported in the November TechMIS Washington Update, Jack Barrett, a Senior Program Officer for the Gates Foundation emphasized, when asked what this initiative means for technology companies, “One of our hopes for the Next Generation Learning Challenges is that the initiative can serve as something of a market signal, identifying significant barriers to college readiness and completion and highlighting promising solutions spaces for more exploration. This general direction can help technology companies identify potential opportunities, guide their R&D, and connect with collaborators.” He specifically pointed to “developmental education,” noting, “Colleges do not really want to be in this business. We know the traditional instructional approaches did not work particularly well the first time around, and the ‘Swiss cheese’ of knowledge in each student lends itself to diagnostic assessment for competency-based acceleration to college readiness. We are seeing some interesting variable pacing models emerging from the National Center for Academic Transformation’s course redesigns to Foothills College’s *MathMyWay*, to some work underway at the Monterey Institute for Technology for Education to develop highly engaging, multimedia, modular instructional materials for developmental math.”

On January 19, 2011, the Gates Foundation, under the same Next Generation Learning Challenges initiatives, announced another RFP that focuses on K-12 education specifically to expand promising technology tools and applications that help more students master seventh-through ninth-grade math and literacy competencies tied to the Common Core State Standards. This \$10 million Wave II will fund Proof of Concept (estimated at \$250,000 each) and Early Stage Adoption projects (\$500,000) that: use modular content and embedded assessments;

“exemplify contemporary research and cognitive and learning science;” and focus on student mastery of concepts and skills rather than seat time. Examples of modules that could be funded include an online course of study including a variety of materials deployed in a variety of learning environments and online collaborative environments allowing students to practice and show mastery of Common Core Standards literacy skills. The RFP states, “NGLC is particularly interested in identifying and spreading the adoption of adaptive materials that could accomplish all of these improvements at cost levels equal to or lower than those found with currently available ‘flat’ (digital or analog) instructional materials.” Examples of eligible applicants include both for-profit and non-profit publishers, who, for example, are seeking to align their digital content and assessments with the Common Core Standards. EduCause, which is managing the NGLC, expects to make about 20 awards (up to 12 Proof of Concept projects and up to 14 Early Stage Adoption projects) for a period of 15 months, with six months options to extend, under this RFP. According to sources ([Education Week](#) October 20th), total Gates Foundation spending for post-secondary and K-12 projects could range between \$60 and \$80 million.

Other Important Initiatives

In addition to the Gates Foundation initiatives, other groups are experimenting with or exploring alternatives for addressing the “readiness gap” and the college completion challenge. A number of approaches are based on analyses of longitudinal and other student data. As reported in [Education Week](#) (January 3, 2011), Jordan Horowitz described the Cal-PASS collaboration which involved all 112 California community colleges and nearly all public universities who share data with two-thirds of all K-12 districts in the States. A new report by Jobs for the Future, entitled *Taking the Next Step*, describes efforts to identify immediate measures for meeting post-secondary completion goals from which solutions, such as early intervention programs, tutoring, and additional academic assistance, can be implemented.

Another California-born solution (beginning in 2004) to college readiness challenges is the Early Assessment Program (EAP) which not only allows students to enroll in credit-bearing courses, thereby skipping remedial courses, but also provides an early warning system with courses for students scoring low on the EAP. As reported in [Education Week](#) (January 20, 2011), the two state consortia which are designing the new state assessments aligned with Common Core Standards “cite the EAP as a model as they endeavor to fold elements of it into work they hope will ultimately make college remediation unnecessary: aligning K-12 study and test to college expectations, creating a feedback loop to inform learning, and providing supports to students and teachers.” Online learning tools are available for “not yet college ready” students in math and English and are designed to increase students’ skills so they can pass California state university placement tests. The Expository Reading and Writing course, designed by K-12 and CSU faculty members, reflect needed skills in college-level English. A web-based tool is also available to help teachers improve students’ essay-writing skills. [Education Week](#) notes, as of this academic year, 48 of California’s 112 community colleges are accepting the EAP results in lieu of the course placement tests they previously used. Also, 376 of California’s 1,400 public high schools have fully implemented the Expository Reading and Writing Course, while others have used some of its modules.

Another interesting approach to reducing costs and provide increased overall flexibility and convenience has been proposed by a veteran practitioner of online college remediation. Burck Smith, in American Enterprise Institute's "Outlook," suggests that a subscription-based model in which students can work at their own pace and get help from readily available faculty would improve outcomes and reduce costs. Smith argues that only about 13 percent of students taking development courses have a chance of eventually receiving a Bachelors degree. Such an approach would provide an "incentive for students to succeed quickly and would limit the cost for those who fail....a subscription pricing model could reduce taxpayer expenses, student loan burdens, and college infrastructure use and it might even encourage failing students to return later to the postsecondary system. Furthermore, savings could be reinvested in support services that help with nonacademic barriers to student success."

As reported in Education Week (September 15, 2010), Valencia (Florida) Community College has developed the "Learning in Communities" program for its students taking remedial courses with students paired and remaining together, led by student learning teams to organize study groups outside the classroom. At Zane State (Ohio), additional student supports are provided during the first year of college which has resulted in 87 percent of students making it through the first year graduating. An early intervention system identifies students who are repeating courses and provides support before they drop out. Using technology, instruction is individualized and developmental education courses are tailored to meet student needs.

Community College Students Perceived to Succeed Needs

Only a very few studies have attempted to identify community college students' perceptions of what they need or what the college should provide for them to be successful at completing college. One recent study, conducted by the Pearson Foundation, did address this area.

During the Fall of 2010, Harris Interactive conducted a survey of more than 1,400 residents, ages 18-59, who were enrolled in U.S. community colleges, in an attempt to identify what community college students feel they need in order to succeed. As the report notes, "More than seven in ten students believe that it is important to have access to high speed Internet in order to succeed at community college. In fact, students tend to believe that high speed Internet access is more important for success than having access to advisors or relationships with professors." Two-thirds of students believe is important to have access to advisors or relationships with professors and almost three-fourths say they have to do homework or quizzes online in order to succeed in community colleges. The report also states, "Students recognize the benefit of online tools and supplemental materials -- two-thirds of students agreed they would do significantly better in their courses if they spent more time using supplemental online materials (65%) or that online homework and tutoring software helps them to achieve a higher grade in their courses than they would achieve without it (66%)." Moreover, as the report notes, "Students who have considered dropping out are particularly likely to think they could do better in their courses if they spent more time using these online materials." The types of community college students who are most likely to believe that having access to online courses is highly important for success in community colleges are those who are at greatest risk of dropping out such as those who are employed full-time, older, married, or living with children.

A number of additional findings from the Pearson survey relate to students who have dropped out or are considering dropping out, or students who are enrolled in developmental/remedial courses:

- Students who have ever considered dropping out are more likely than those who have not to believe they could do better in their courses if they spent more time with supplemental online materials (78% vs. 61%).
- Students who take remedial courses are more likely than those who don't to value tutoring (56% vs. 42%) or establishing relationships with other students (41% vs. 31%).
- Minority Black and Hispanic students involved in receiving developmental courses place a higher value on remedial tutoring than do White students (68% vs. 55% vs. 37%).
- Students enrolled in remedial courses are more likely than others to have dropped out or seriously considered dropping out of community college (22% vs. 15%).
- About three in ten students who took math or English placement tests for the Fall 2010 semester were unable to enroll in any or only some of the recommended courses, including developmental programs.
- Students who have ever considered dropping out are more likely than those who have not to believe that having a support system is critical for success (28% vs. 14%).
- Nearly three-quarters (73%) of community college students say that one or more of their courses this semester required them to do homework, problems, or quizzes online.
- Students who dropped out are slightly more likely than current students to mention course availability (25% vs. 16%) and having support (23% vs. 15%) as important towards success.

The survey also addressed to the degree to which community college students have experience with online courses and supplemental materials, including:

- Nearly 80% of community college students believe online courses are more convenient than in-person courses; about four in ten would like to take all of their courses online. Moreover, students are generally enthusiastic about online supports such as supplemental materials and homework/tutoring software.
- About six in ten students have taken community college courses online and, out of those students, about half said they are extremely or very satisfied with their experience.
- While the vast majority of community college students are aware of digital textbooks, less than one-fifth have ever purchased one; however, students enrolled in remedial courses are more likely than those who are not to own digital textbooks (27% vs. 16%).
- Community college students access high-speed Internet most often when they are at home, although around two-thirds also access the Internet when they are on campus.