REGIONAL *EDUCATIONAL* LABORATORY
SOUTHEAST ~ SERVECenter

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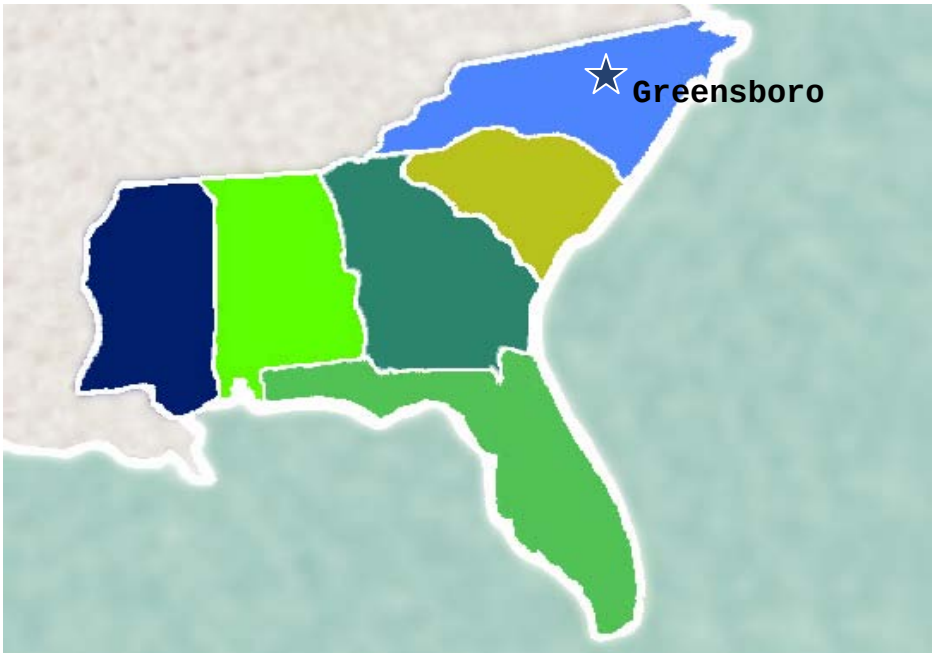
EVIDENCE BASED EDUCATION REQUEST DESK

OUR GOAL

To assist educators and policymakers in their efforts to apply the evidence base to decisions about policies, programs, and practices they encounter.



REQUEST:

- What research is available that relates to ARRA Assurance 1, "Making progress toward rigorous college- and career-ready standards and high-quality assessments that are valid and reliable for all students, including English language learners and students with disabilities?"
  - *Goal 1: Making progress toward rigorous college- and career-ready standards and high-quality assessments that are valid and reliable for all students, including English language learners and students with disabilities.*

RESPONSE

There is a great deal of information available related to the ARRA Assurance focused on college/career ready standards and assessment, much of it very recent. So much is available that this report contains only a part of the available documents. The report is organized in sections based on issues that appear pertinent to standards and assessment. These are:

- Core Curriculum/Rigor
- Standards
- Standards and Equity
- Benchmarking
- Policy
- Assessment

If you have any questions regarding this document, please contact the REL-SE, 1-800-755-3277 or RELSoutheast@serve.org

REL SOUTHEAST
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- Rural Schools
- Urban Schools
- High School Improvement
- College Readiness and Latino Students
- Standards and Special Needs Students

Each section begins with a summary of important information from the included reports. Overall, the reports included here agree on several points.

- American students are not well-prepared by a high school education for either college or career (ACT, 2005a; ACT, 2008; Achieve, 2008).
- This situation must be corrected if the United States is to compete in an increasingly global economy, and if students are to be able to succeed in post secondary education or the workplace. Education is the key to this (ACT, 2005a, ACT, 2008, Pinkus, 2009).
- Common standards are an important element in changing our educational system to one that is responsive to a changing world (ACT 2005a; ACT, 2008; Achieve, 2008).
- Our assessment system must change to keep pace with other educational changes (Pinkus, 2009).
- Policymakers, both at the state and the Federal level, have an important role to play as the educational system changes (Achieve, 2008).
- All students must receive the same education geared to prepare them for college or career (ACT, 2008; Pinkus, 2009).

The documents in this report focus on what changes must be made if we are to remain competitive and how we are to make these changes, as well as on lessons learned by those who have begun making changes. A brief section of miscellaneous information that may be of interest is included at the end of the report.

Core Curriculum/Rigor

American students are typically not ready for college/career when they complete high school. According to 2003–2004 results from ACT, only 26% of students tested met ACT's College Benchmarks. The situation is much worse for minority students. Nearly one-third of students entering postsecondary education need some type of remediation to succeed in postsecondary courses. In response, there has been for some time a movement to require that all students, not only those who are college bound, take a core curriculum consisting of four years of English and three years each of math, science, and social studies. In today's world, career readiness requires much the same skill set as college entrance; college readiness equals workplace readiness. A core curriculum has been shown to have a positive impact on student achievement as reflected by test scores. But, not enough students take this curriculum, and the rigor of the courses may vary. One way to ameliorate this situation is to encourage students to take high-level courses beyond the core curriculum. There are many things educators, policymakers, and business and community leaders can do to increase the likelihood that students take not only a core curriculum but a rigorous course load. Among these are:

- Develop a common focus to build bridges among educators, policymakers, and higher education.
- Raise expectations for all students.
- Provide and support a rigorous curriculum at all levels.
- Provide student guidance to ensure that all students take appropriate courses and know their options.
- Measure progress (ACT, 2005a).

A great deal of work must take place at the state level. States must:

- Adopt fewer, but essential standards for their high school graduation requirements.
- Improve the rigor of their courses.
- Begin monitoring early to ensure that students entering high school have the foundation to succeed in a rigorous course setting (ACT, 2008).

Schools may want to encourage students to take AP courses. AP courses are an indication of rigor. The percentage of students in a school who take and pass AP courses is the best indicator of whether the school is preparing students to be college/career ready (Dougherty, 2006). In addition, rigorous courses that help prepare students for college contain college-level content are taught by qualified and experienced teachers who are flexible in their approach and offer extra support when it is needed (ACT, 2008).

ACT. (2005a). ***Crisis at the core: Preparing all students for college and work*****. Iowa City, Iowa: Author**.

To be ready for college or the workplace, students must prepare. Preparation consists of the courses taken in high school. This document is directed at educators and policymakers and community and business leaders and emphasizes the benefits of a rigorous core curriculum for all students, whether college bound or not. It indicates that, by several measures, our students are not ready for either college-level work or the workplace when they graduate from high school. To remediate this situation, the document support s a minimum core curriculum for all students consisting of four years of English and three years each of science, math, and social studies, and suggests that students who take additional rigorous courses—courses for success—beyond this, consisting of at least one advanced mathematics course beyond Algebra II along with Biology, Chemistry, and Physics are much better prepared to succeed at the postsecondary level than those who do not. It endorses this course taking pattern. Positive outcomes associated with both the core curriculum and the courses for success are discussed. Suggestions for what educators, policymakers. and business and community leaders can do to bring this rigorous curriculum about and ensure that students take these courses and succeed in them are offered. These are focused on:

- Common focus
- High expectations
- Rigorous curriculum
- Student guidance

- Measuring progress

Suggestions related to each area are offered for educators and policymakers and business and community leaders.

ACT. (2005b). ***On course for success: A close look at selected high school courses that prepare all students for college and work.*** **Iowa City, Iowa: Author.**

This study examines the characteristics of high schools that have been successful in guiding all students—including minority and low-income students—into courses that prepared them to do well on college admissions tests. The research question at the base of the study was, "What are the components of high school courses that prepare students for successful entry into postsecondary education without the need for remediation?" To select the sample for the study, the researchers identified 21 schools from across the country that met study criteria; these schools were invited to participate. Of these 21 schools, 10 agreed to be a part of the study. To collect the data for the study, the researchers provided the participating schools with the names of students who met the score criteria on the ACT Assessment. The schools used these lists to identify the courses each student took and the teacher who taught the course during 2001 and 2002. Through a study liaison, surveys were sent to these teachers to collect a range of information about their teaching techniques and background. Teachers submitted classroom materials for three consecutive weeks as well. Survey information was entered into a database and reviewed; it was then evaluated using a constant comparative method. This was followed by classroom visits to selected classrooms, observations, and teacher interviews. Information collected was coded on a framework; once coding was complete the framework was reviewed to identify the most commonly used practices and strategies. Practices and strategies that appeared most often were identified as a finding, and as conclusions were being drawn, study team members followed up findings using interviews with school principals. Overall, study results indicated that students enrolled in effective classes benefitted from:

- College-level content in their courses
- Qualified and experienced teachers
- Teaching that is flexible and responsive to students
- Extra support when necessary

Results specific to math, English, and science courses are provided in the report along with course syllabi. Recommendations based on the report findings are offered for parents, educators, community members, and policymakers.

ACT. (2008). ***ACT's college readiness system: Meeting the challenge of a changing world.*** **Iowa City, Iowa: Author.**

This document is essentially focused on the College Readiness System, a plan developed by ACT to ensure that students are ready for college and/or career when they complete high school. It begins by emphasizing the critical need for students to graduate high school both college and career ready and defines readiness as the level of achievement needed to enroll and succeed without remediation in first-year postsecondary classes, focusing on the role of P–12 education

in providing this foundation. Statistics and facts indicating that schools are not meeting the needs of students as they move from P–12 into college and the workplace are offered, and six action steps that states should take to ensure that students are able to move successfully into postsecondary roles are detailed along with the research base supporting them. These are:

- States should adopt fewer, but essential, college- and career-readiness standards as their new high school graduation standards.
- States should adopt a rigorous core curriculum for all high school graduates whether they are bound for college or work.
- States must define "how good is good enough" for college and career readiness.
- States should strengthen the rigor of their courses.
- States should begin monitoring early to make sure younger students are on target to be ready for college and career.
- States need to establish longitudinal P–16 data systems.

ACT's College Readiness System is discussed in detail, and examples of positive outcomes associated with the system are provided. The system includes college-readiness standards and benchmarks as well as a longitudinal assessment component that allows states to monitor students' college readiness beginning in eighth grade. The document indicates that as of April 2008, several states had adopted this model.

Dougherty, C., Mellor, L., & Jian, S. (2006). *The relationship between Advanced Placement and college graduation.* (AP Study Series, Report 1). Austin, Texas: National Center for Educational Accountability.

"This study explores the relationship between college graduation rates and student participation and success in Advanced Placement (AP) courses and exams. We reviewed three approaches to examining this relationship: 1) comparing the college graduation rates of AP and non-AP students; 2) comparing the college graduation rates of AP and non-AP students after controlling for students' demographics and prior achievement and the demographics of their high schools; and 3) examining the relationship between percent of students from a given high school graduating from college and the school's percent of students in Advanced Placement. We conclude that the percent of a school's students who take and pass AP exams is the best AP-related indicator of whether the school is preparing increasing percentages of its students to graduate from college. The importance of AP exam results indicates the need for schools and districts to pay close attention not only to the quality of teaching in Advanced Placement courses but also to improving the academic preparation of students prior to their enrollment in those courses."

- Sample size for the study was 67,412 Texas eighth graders who graduated from high school in 1988 and enrolled in a Texas public college within a year.
- The study analysis focused on the odds that a student would graduate from college within five years of enrollment.
- Students were disaggregated by race and socioeconomic status.

- Students were divided into three groups; those who took and passed at least one AP exam with a score of three or above, those who took one or more AP exams but did not pass them, those who took the AP course but not the AP exam, and those who took no AP course or exam.
- Analysis used the school population exam passing rate, not the exam takers passing rate; schools can inflate the exam passing rate by restricting exam takers to a few high achieving students.

Theodore, K., & Madison-Harris, R. (2009). ***Adopting rigorous college and career ready standards and high-quality assessments.*** **Southeast Comprehensive Center e-Bulletin,** ***4*****(2), 1–6.**

This issue brief from SEDL points out the need for college and career readiness and offers several related definitions for it. It defines the Federal role in education reform, indicating that it is to support the states; ARRA and the Race to the Top are briefly discussed, along with actions that states may take to promote higher standards and effective assessment systems. The Common Core Project is detailed, and support efforts from educational organizations are outlined. The brief touches on actions that states are taking to address the critical issue of college and career readiness; specific information is offered about the Illinois College and Career Readiness Act. A number of references are provided.

Standards

Although there has been a movement toward standards-based education in place in this county for some time, currently each state has its own set of standards. Historically, the educational climate has conspired to keep standards relatively low (Dougherty, 2006). The lack of a mandate for common standards has led to considerable variation in the content, quality, proficiency, and college readiness levels of standards (Rothman, 2009). In an effort to change this situation, there is now in place a movement toward common educational standards across all states. This movement is detailed on the Common Core Standards website identified below; 48 states and three territories have joined this movement. Common standards have many benefits for students, educators, and states. They will:

- Help ensure that all students are ready for college/career; every student will meet a fixed set of rigorous requirements to graduate high school.
- Provide students with a clear set of expectations (Rothman, 2009; Common Core Standards Initiative).
- Support focused effective professional development and high-quality teacher training (Rothman, 2009: Common Core Standards Initiative).
- Ensure that curriculum is aligned with useful assessments.
- Help states better evaluate policy changes and identify best practices (Common Core Standards Initiative).

In addition, common standards offer more equity; this is particularly important for minorities and low-income students. To ensure this equity, states must make a curriculum based on these college-ready standards the default curriculum for all K–12 students (Dougherty, 2006). Effectively implementing such standards will require taking action long before students enter high school (ACT 2008). Common standards are also more economically efficient and support higher expectations for all students (Rothman, 2009). And, not only can these changes help students better prepare for college and the workplace, these changes can also help the United States remain competitive in the current global economy that increasingly requires individuals to have a high level of skills and education (Dougherty 2006; Rothman, 2009).
http://www.corestandards.org/
This is the website of the Common Core State Standards Initiative, where detailed information on this project is available.

ACT. (2008). ***The forgotten middle: Ensuring that all students are on target for college and career readiness before high school.*** **Iowa City, Iowa: Author.**
This document, one of several from ACT, begins by emphasizing the importance of college and career readiness and then extends previous research by focusing on the middle grades, specifically eighth grade, as a critical turning point for readiness. It points out that the foundation for success with rigorous courses in high school is laid in the preceding school years. The document offers some background on the lack of preparation of middle school students and then details research related to several interrelated topics. Information is offered on the impact of eighth grade academic achievement on later college and career readiness, the impact of certain steps students can take that may increase their college and/or career readiness, and how academic behaviors impact college and career readiness. The study looked specifically at, first

- The importance of academic achievement in grade eight to readiness in grades 11 and 12
- The importance of coursework and grades in high school in predicting readiness in grades 11 and 12
- The impact on readiness of taking more rigorous courses and attaining higher grades in high school
- The difference in academic progress among students in high school given their achievement level in grade eight

Data for the study were obtained from 216,000 members of the graduating classes of 2005 and 2006. Using this data, predictive models were developed to examine the impact of six variables. These were:

- Demographics
- Eighth grade achievement
- Standard high school coursework
- Advanced/honors high school coursework
- High school grade-point average
- Student testing behaviors

Overall, results indicated that eighth grade achievement was a stronger predictor of college and career readiness in 11th and 12th grade than any other factor; other factors had small effects in comparison. When disaggregated for race, ethnic minority, and/or socioeconomic status, results were the same.

The study then examined the impact of certain steps students could take to improve their college and career readiness. The steps examined were:

- Maintaining a B average
- Earning higher grades in standard high school courses
- Taking a core curriculum
- Taking additional standard courses
- Taking advanced or honors courses
- Meeting EXPLORE college-readiness benchmarks in eighth grade
- Increasing EXPLORE scores by 2 points in eighth grade

Of these steps, those that take place in eighth grade have a greater impact than those that take place in high school. Increases in Benchmark achievement associated with eighth grade improvements were up to three times greater than those associated with high school steps. Finally, the study also examines the impact of certain nonacademic school-related behaviors such as

- Academic discipline
- Commitment
- Family attitude
- Family involvement
- Optimism
- Orderly conduct
- Relationships with school staff
- School environment
- Steadiness
- Thinking before acting

A total of 2,928 students were studied based on course failure, and 2,146 were studied based on grade point. Results indicated a strong impact on course failure by two factors: academic discipline and orderly behavior. Academic discipline accounted for 61% of the effects of all academic behaviors. Academic discipline and orderly behavior also had an impact on ninth grade GPA along with one additional factor, relationships with school staff. Conversely, taken together, academic achievement and academic behaviors are a strong predictor of academic difficulties. Helping students to improve their academic behaviors can in turn produce improvements in academic achievement and set the stage for college and career readiness. The document goes on to detail the essential skills that students must have by the end of eighth grade to be on track for readiness. The report offers recommendations for middle and high schools that

will support students in attaining the necessary level of achievement in eighth grade, high school, and beyond. Detailed appendices are attached.

Carnegie Corporation. (2009). *The opportunity equation: Transforming mathematics and science education for citizenship and the global economy.* New York, NY: Author.

This document is focused n the importance of educating today's students effectively in math and science both for their benefit as they enter postsecondary education, for the workplace, and for the future of the country. It points out that in today's world, the division between preparing for college and preparing for the workplace has disappeared, and that the STEM disciplines are essential if young people are to be adequately prepared to compete and succeed. It advocates significant change in the way math and science education take place in this country, emphasizing the central role math and science play in educational improvement and innovation— "…holding ourselves accountable for raising math and science achievement for all students will be the means by which we finally achieve transformative change in our educational system." The document contains a practical plan, developed by the Commission on Mathematics and Science Education, to improve the math and science achievement of all students. Recommendations focus on four important concepts:

- Higher levels of mathematics and science learning for all American students.
- Common standards in math and science that are fewer, clearer, and higher, coupled with aligned assessments.
- Improved teaching and professional learning supported by better school and system management.
- New designs for schools and systems to deliver math and science learning more effectively.

Each of these sections contains goals; discussion that includes information such as key findings, practices, and real-life examples of exemplary practice; and recommended actions. The section on standards and assessments asserts that we must adopt more rigorous common core standards for what math and science education should look like for all students. Two objectives are offered:

Establish common math and science standards that are fewer, clearer, and higher and that stimulate and guide instructional improvement in math and science and lead the way toward preparing all American students for a global economy.

Develop sophisticated assessment and accountability mechanisms that, along with common standards, stimulate and guide instructional improvement and innovation in math and science.

Considerable discussion of these objectives is incorporated into the section, and recommendations are provided for actions to be taken by the federal government, governors and states, colleges and universities, businesses unions, and nonprofits and philanthropy.

Dougherty, C., Mellor, L., & Smith, N. (2006). *Identifying appropriate college readiness standards for all students.* (Issue Brief # 2). Austin, Texas: National Center for Educational Achievement.

This issue brief is focused on the idea that schools should set high standards for all students, not just those who are "college bound." Reasons for the relatively low standards typically set by schools are discussed, as is a rationale for setting higher goals. The report indicates that setting high standards can result in a more equitable, excellent educational setting for all students and can help close achievement gaps. The report encourages a long-term outlook, rather than a short-term, quick-fix perspective. It indicates that, in the absence of high state standards, educators can set high local standards and criteria are discussed. A case study is included.

Rabinowitz, S., Roeber, E., Schroeder, C., & Scheinker, J. (2006*). Creating aligned standards and assessment systems.* Washington, D.C.: Council of Chief State School Officers.

"The No Child Left Behind (NCLB) legislation requires academic content and achievement standards at the contiguous grades levels 3–8 and one grade in the high school span. Because many states previously developed standards for grade spans, state academic content standards and consequently, academic achievement standards are undergoing revision to include grade specific standards or grade-level expectations. The experience of states in attempting to fully align assessments with previously developed academic content standards has produced valuable lessons about the role of standards in an aligned system and the implications of this role for their development and organization. Attention to vision, purpose and consistency of organization with the uses to be made of the academic content standards provide important guides for their revision. This paper provides a discussion of lessons learned in additions to suggestions and recommendations to state departments and state policy makers for revising academic content standards in a manner to support the improved alignment of assessments with standards. A checklist is provided to help states consider what actions they can take to enhance consistency within and across content areas and to improve their usefulness in guiding the development of aligned assessments in the standards-based system. An argument is made that consistency in the organization of academic content standards documents serves not only to enhance alignment of academic content standards and the comprehensive assessment systems but also the productive use of the document by all stakeholders."

Rothman, B. (2009). *Common standards: The time is now*. Washington D.C.: Alliance for Excellent Education.

This research brief details the need for common standards that are rigorous, clear, and focused and relates this to why higher expectations are needed for all students and why variation in standards is unacceptable. It suggests ways that common standards can lay the groundwork for an education system that will prepare all students for college and/or career. Changes in the job market and the growth of a world economy mandate that all prepare to be competitive; common standards are essential to this effort for reasons of equity, efficiency, and to raise political will for higher standards. The brief reviews reasons that common standards are not currently in place. These include the controversial nature of some standards, lack of clarity, and lack of a structure to guide state action. As a result, each state developed individual standards, leading to a wide range of expectations for students across states. State standards vary in content, quality,

proficiency levels, and college readiness. Common standards will set clear expectations, guide teacher practice to enable students to meet expectations, and support high-quality professional development. The brief ends by indicating that this idea has strong support from a variety of organizations and by emphasizing the importance of moving toward common standards for all learners.

Standards and Equity

Equity is an issue raised often in documents focused on standards and college and career readiness. Experts urge educators to ensure that all students are college/career ready (ACT 2005a; ACT 2005b; Dougherty, 2006; Rothman, 2009). Meeting this challenge may require substantial change in instructional techniques (Corcoran & Silander, 2009), yet equity is a key to ensuring that our students complete high school college/career ready.

Corcoran, T., & Silander, M. (2009). Instruction in high schools: The evidence and the challenge. *Future of Children*, *19*(1), 157–183.

"The combined effects of **standards**-based reforms and accountability demands arising from recent technological and economic changes, say Tom Corcoran and Megan Silander, are requiring high schools to accomplish something they have never been required to do—ensure that substantially all students achieve at a relatively high level. Meeting that challenge, say the authors, will require high schools to improve the effectiveness of their core technology—instruction. The authors first examine how organizational structures affect instruction. Most high schools, they say, organize instruction by subject or discipline, thus encouraging an isolated and independent approach to teaching rather than one in which teachers are guided by a shared vision or goals. Many schools have focused on increasing teacher collaboration, often through teaming, interdisciplinary teaching, or professional learning communities. Citing limited evidence that these reforms improve instruction and learning, Corcoran and Silander urge researchers to examine whether the changes help schools implement specific instructional reforms and support sustained efforts to improve instruction. Next the authors explore the effects on student learning of instructional strategies such as interdisciplinary teaching, cooperative learning, project-based learning, adaptive instruction, inquiry, and dialogic teaching. The evidence suggests the power of well-designed student grouping strategies, of allowing students to express their ideas and questions, and of offering students challenging tasks. But, the authors say, less than half of American high school students report working in groups, and little class time is devoted to student-centered discussions. The authors conclude that schools should promote the use of proven instructional practices. In addition, teachers should systematically monitor how students vary in what they are learning and adapt their instruction in response to students' progress and needs, in the process learning more about what variations in instruction respond most effectively to common variations in students' learning. The authors argue that such 'adaptive instruction' has the greatest potential for success in today's **standards**-based policy environment with its twin values of **equity** and excellence"

Lachat, M. (1999). *Standards, equity and cultural diversity*. Providence, Rhode Island: Northeast and Islands Regional Education Lab at Brown University.

"This document addresses frequently asked questions and issues and promotes greater understanding by administrators, teachers, and parents of the potential benefits of education **standards** for the rapidly increasing population of students whose first language is not English. The **standards** movement challenges educators and the public to understand that high **standards** are as important in education as they are in other professions. **Standards** define what is essential for successful performance and encourage people to strive for the best. Setting high **standards** for all students means that the quality of education offered the best and the brightest should be the quality of education available to all. However, varied and innovative instructional strategies will be essential to enable students with diverse needs and varying levels of English proficiency to learn at high levels. To effect these strategies, the United States will need highly skilled teachers who can offer a range of learning opportunities that connect to different learning styles, some of which may be culturally based, and also provide the necessary accommodations and supports that enhance student learning. Initial test scores are an important foundation for identifying where current curriculum and practices do not promote high **standards** of learning for all students, and where curriculum improvement and staff development are necessary if **equity** in learning is to be achieved. Three appendixes contain tools to assist educators in implementing policy, practice, and professional development: a discussion of professional development to support **standards**, a discussion of assessment that supports **standards** based learning, and guidelines for determining the appropriateness of performance assessments for students from diverse backgrounds."

Benchmarking

Benchmarking can have two meanings, and both are germane to high standards and student achievement. The first, more familiar, meaning has to do with the skills and abilities students need to meet rigorous educational standards. Currently, benchmarks and standards in our educational system are often unclear and confusing; as a result, many American students graduate from high school unprepared to be successful either in post-secondary education or in the workplace. High school graduates lack basic skills, need remediation and often fail to attain a post secondary degree (Achieve, 2004). One solution to this state of affairs lies in a standardized set of rigorous benchmarks for all students to achieve as a prerequisite to high school graduation. These benchmarks can set high standards for students; incorporating them into every state's graduation requirements would improve the odds that students are prepared to succeed when they graduate from high school (Achieve, 2004).

A second related meaning for benchmarking has to do with comparing educational outcomes in the United States with those from other countries in an effort to learn from the experience of others and establish best practices. Through looking globally at standards and expectations, we can gain insight into how best to transition from a fragmented system to one with standard expectations for all students (Schmidt, 2009). It is important that we take action in several arenas, from upgrading state standards, textbooks, media, curricula and assessments to improving teacher recruitment and training and holding schools and students accountable

(National Governor's Association, 2008). This practice is a key to ensuring that our students are able to compete in a setting that is becoming increasingly global (National Governor's Association, 2008).

Achieve, Inc. (2004). ***American Diploma Project: Ready or not: Creating a high school diploma that counts.*** **Washington, D.C.: Author.**

The American Diploma Project is a cooperative project between Achieve, Inc., the Education Trust, and the Thomas B. Fordham Foundation intended to re-establish an effective link between secondary education and the postsecondary world of college attendance or meaningful work. Success in the postsecondary world of college and/or career demands that students graduating high school must have mastered certain fundamental skills in English and mathematics that will allow them to go on to further education or to a "high performance, high growth job." This report describes these tasks and also describes certain workplace tasks and postsecondary assignments that illustrate practical applications of essential the competencies. College and workplace benchmarks that offer a sound foundation for success in college or the workplace are detailed. The report describes a problem that is the result of a confusing and inconsistent set of expectations and assessments imposed by the secondary education system that impacts both acceptance to and success in the postsecondary education world and entrance into a career. Some facts supporting the existence of this problem are offered. The report indicates that solving this problem will require first anchoring high school requirements and assessments to the real world and then using the information generated through these in practical hiring, admissions, and placement practices. The document contains a set of benchmarks in math and English developed in cooperation with partner states and other relevant entities that could be used as a basis for a common core of graduation requirements across states. An action agenda is proposed that contains specific suggestions for what states, institutions of higher education, and business leaders should do, and the benchmarks are offered along with examples of acceptable skills.

Carmichael, S., Wilson, W.S., Finn, C., Winkler, A., & Palmieri, S. (2009). ***Stars by which to navigate: Scanning national and international education standards.*** **Washington, D.C.: Thomas B. Fordham Foundation.**

After reviewing the content, rigor, and clarity of the first public drafts of the Common Core standards recently released, subject matter experts also reviewed several other sets of influential standards in an effort to help educators and policymakers understand how these standards compare. This interim report contains the results of that review. The standards reviewed, other than the Common Core Standards, were the reading/writing and mathematics frameworks of the NAEP, the Trends in international Mathematics and Science, and the Programme for International Student Assessment. Overall, the review indicates that the Common Core Math Standards are better than PISA and NAEP but not as good as TIMSS; English and Language Standards earned a grade of "B," as high as, or higher than, other sets of standards reviewed. The report provides details of the criteria used to grade the standards and also offers details of the reviews. A follow-up report is expected in the spring of 2010, containing reviews of the amended Core Standards as well as reviews of additional sets of comparable standards, and adding reviews of science and history standards.

National Governor's Association. (2008). ***Benchmarking for success: Ensuring US students receive a world-class education.*** **Washington, D.C.: Author.**

This report is focused on international benchmarking, the practice of comparing educational outcomes to those in other countries in an effort to seek out best practices in education and learn "from nations and states that offer ideas for boosting their own performance." This change has come about in response to the changes that have taken place in the demands of the job market and increasing economic globalization. In order to compete, the United States must respond to these new challenges, and education offers a highly effective means. However, if the U.S. is to compete effectively, change must take place in the education system. "State leaders already are deeply engaged in efforts to raise standards, advance teaching quality and improve low-performing schools. International benchmarking provides an additional tool for making that process more effective…". This document advocates five actions:

- Upgrade state standards by adopting a common core of internationally benchmarked standards in math and language arts for grades K–12.
- Leverage states' collective influence to ensure that textbooks, digital media, curricula, and assessments are aligned to internationally benchmarked standards.
- Revise state standards for recruiting, preparing, developing, and supporting teachers and school leaders.
- Hold schools and systems accountable through monitoring, interventions, and support to ensure consistently high performance.
- Measure state-level education performance globally by examining student achievement in an international context to ensure that, over time, students are receiving the education they need to compete in the 21st century economy.

The Federal government can enable these changes in several ways:

- Providing funding to help states underwrite costs incurred in implementing change.
- Increasing Federal research and development funds to provide states with excellent information on international practices.
- Help develop streamlined assessment strategies to support accurate international comparisons.
- Provide tiered incentives to states as they move through this process.
- Update laws to better align national education policy with lessons learned.

Schmidt, W., Houang, R., & Shakrani, F. (2009). ***International lessons about national standards*****. Washington D.C.: The Thomas B. Fordham Foundation.**

This report looks at the educational systems and histories of ten countries for guidance on how the Unites States might best transition to a system of national standards and tests. The countries examined are Brazil, Canada, China, France, Germany, India, the Netherlands, Russia, Singapore, and South Korea. The lessons learned are these:

- It is not true that national standards mean loss of local control.

- An independent, quasigovernmental institution is needed to oversee the development of national standards and assessments and to produce dependable reports to the nation.
- The Federal government should encourage and provide resources for the standard-setting process.
- We should develop coherent, focused, rigorous standards beginning with English, math, and science.
- National assessments (including open-ended questions) should be administered at grades four, eight, and twelve every two years.
- Hold students, teachers, and schools accountable for performance.

The report discusses each of these lessons in detail. Profiles of the countries examined are included at the end of the document.

Policy

As might be expected, there is considerable information available related to policy and college and career readiness. While the information covers a range of information, a point of agreement is the need for rigorous, common standards for all students (Achieve, 2008b;Achieve, 2008a; ACT 2008b; Finn, 2006). Reports also examine assessment (Achieve, 2008), rigor (ACT, 2008), and accountability (Callan, 2006). Two reports offer data-rich information related to college and career readiness, and there is also information on the Federal role in supporting the movement toward college and career readiness for all students, as well as a report intended for educators on the Race to the Top.

Achieve. (2008a). *Closing the expectations gap*. Washington, D.C.: Author.

In 2005, Achieve sponsored a summit attended by 45 governors as well as business leaders and educators from K–12 and higher education. As a result of the summit, leaders committed to an action plan to

- Raise academic standards and graduation requirements
- Build stronger data and assessment systems
- Better prepare teachers
- Redesign high schools
- Hold K–12 and postsecondary schools accountable for improved performance

Each year since the summit, Achieve has surveyed states to determine their progress toward meeting the action agenda set at the summit. Over three years, many states have made progress closing the expectations gap between what students learn in high school and what they are expected to know when they move to postsecondary education or the work world, although some have moved more aggressively than others. States have made the most progress in aligning standards and graduation requirements with postsecondary expectations. This document contains an overview of the results of the 2008 state survey.

Achieve and The Education Trust (2008b). ***Making college and career readiness the mission for high schools: A guide for state policymakers.*** **Washington, D.C.: Author.**

This guide for state policymakers is intended to help states move toward a new approach to standards, tests, and accountability in high school, with an overall goal of preparing all students to succeed in either the work world or in college. It is based on key lessons from reform efforts along with input from a panel of advisors made up of national, state, and local education leaders. The guide is organized around such basic topics as standards, course requirements, curriculum and teacher support materials, aligned assessments, and an effective, timely assessment/reporting system. Sections of the report focus on these topics; each offers a rationale and a set of questions to help provide structure for a new perspective on high school improvement at the state level. Section one of the document looks at standards. The section suggests that those institutions of postsecondary education and in the workplace must define the skills and behaviors students need at high school completion to be successful, and states must align standards with these requirements. These standards, once developed, must focus on essential skills, and they must provide enough specific information to guide education before high school. Section Two is focused on course taking behaviors. It suggests that schools must ensure that all students take a sequence of courses that aligns with state standards and college and career requirements and that there are enough well-qualified teachers to provide these courses to all students. Section Three examines curriculum and teacher support. It indicates that to successfully teach essential courses, teachers need appropriate leadership from the state on these issues. Decisions about what course content should look like, what comprises high-quality student work, which decisions about who provides text books and other teacher materials should be made and implemented at the state level. States should also provide support for reorganizing high-priority courses and ensure that the quality of teaching is assessed regularly. Section Four deals with assessing student learning, advocating an assessment system that is based on college- and career-readiness requirements. It indicates that communication between the state's education system and institutions of postsecondary education and employers plays an important role in the development of a useful assessment system. It also touches on the issue of incentives and on the types of testing that fit into an effective testing system. The final section focuses on the development of an information and accountability system that will provide the information needed to effectively set goals and expectations and make these essential changes in how high schools function.

ACT. (2008). ***Making the dream a reality: Action steps to prepare all students for college and career.*** **Iowa City, Iowa: Author.**

This report, from ACT, suggests that American students are not prepared for college or the workplace when they graduate from high school. The report is intended to address this situation by offering action steps that states should take to ensure that students are prepared to succeed when they receive a high school diploma. These are:

- States should adopt fewer, but more essential, college- and career-readiness standards as high school graduation standards.
- States should adopt a rigorous core curriculum for all students, regardless of whether they are college or career bound.

- States must clearly define "how good is good enough" for college career readiness.
- States should strengthen the rigor of their courses.
- States should begin monitoring early in order to make sure that younger students are on target.
- States need to establish longitudinal P-16 data systems.

These policy steps are discussed in detail, and supporting information is included in the document.

Achieve. (2010). Race to the Top: *Accelerating college and career readiness in states*. Washington, D.C.: Author.

This document is intended for states and gives some guidance on how to proceed as states adopt college- and career-ready standards, develop aligned assessments, and work to bring common, career- and college-ready standards into the classroom. In discussing common standards, the document focuses on the importance of taking into account the expectations of institutions of postsecondary education and employers and highlights the Common Core Standards Initiative, urging states to participate. Some criteria for states as they work toward adopting common standards are provided. Aligned assessments are discussed more extensively. The document indicates that states should make college and career readiness central. Specifically, states should:

- Develop and/or adopt large-scale anchor assessments for the end of high school aligned with the college- and career-ready standards.
- Ensure these assessments are validated by the states' postsecondary systems.
- Vertically align or moderate all statewide summative assessments to the anchor assessment.

As states develop RTTT applications, partnering and technology are important. In addition, states should collaborate on the design and development of diagnostic and performance assessments.

- Interim assessments aligned to standards should be available to all teachers.
- Formative assessment training for K–12 teachers can support greater assessment literacy; RTTT offers an opportunity to improve this.
- States should cooperate with districts and each other to develop effective performance assessments.

Finally, the document examines how states can bring these standards and assessments into the classroom.

- All students must have access to a college- and career-ready course of study.
- Students must have incentives to complete such a course of study.
- The curriculum must follow the standards.

To ensure that states can:

- Work with districts and other states to develop effective K–12 instructional materials.

- Develop model courses at the high school level.
- Use technology to disseminate courses and to improve professional development.
- Develop pilot programs to increase student participation in advanced courses and dual-enrollment programs.
- Innovate with course delivery; multiple pathways to learning the necessary skills and content can help students to be successful.

Examples of successful state consortia are included.

ACT. (2009). *The condition of college readiness 2009*. Iowa City, Iowa: Author.

This report, "provides a snapshot of the college readiness of the graduating seniors of the class of 2009 who took the ACT in high school." The document contains five sections. Section One focuses on access and preparation and provides data on the number of students exposed to college entrance testing and the percentage of students participating in a core curriculum. Section Two looks at academic performance as reflected by student test performance and the effect of rigorous coursework on achievement. Section Three provides information on the percentage of students who met the ACT College Readiness Benchmarks in every area. Section Four examines the extent to which student aspirations match workplace needs. Section Five focuses on policies and practices that can improve student readiness for college. The information in the report is offered primarily using graphical representations and has been disaggregated based on many different attributes; using the information, stakeholders can examine trends that may reflect educational change.

Alliance for Excellent Education (2009a). *Reinventing the federal role in education: Supporting the goal of college and career readiness for all students.* Washington D.C.: Author.

This policy brief focuses on the Federal role in educational policy, advocating the passage of a new ESEA designed to move education in the United States toward the goal of graduating all students from high school ready to succeed in college. It outlines existing Federal policy in several areas and suggests changes in goals, accountability, school-improvement policy, and funding that should be made to move toward that goal. Each area is discussed in detail, and specific suggestions are included for successful implementation.

Alliance for Excellent Education (2009b). *Preparing students for college and career: California multiple pathways.* Washington, D.C.: Author.

This document begins with some background information indicating the need for high school reform and then details the multiple pathways approach to education, an effort in California to support students to complete high school and prepare for success in college and/or career. Prior to development of the Multiple Pathways effort, California had in place some innovations intended to support college/career readiness. These included the A-G curriculum, a revitalization of the Career and Technical Education system and the California Partnership Academies. California Multiple Pathways are an extension of these efforts, organizing programs of study

around California's major industries and combining college prep academies with high-quality career-technical education, work-based learning opportunities, and student support. The approach is based on four guiding principles and four core components. According to this document, although research on the model is not incontrovertible, it is promising. Promising models of implementation are discussed, as are challenges that include human capital issues, system and policy alignment, and funding issues. The document indicates that support for the effort is growing, as evidenced by the Coalition for Multiple Pathways that has a widespread membership across state agencies, business and trade organizations, community and advocacy groups, education organizations and associations, public agencies, research and policy organizations, and individuals. Implications for Federal Policy are discussed.

Callan, P., Finney, J., Kirst, M., Usdan, M., & Venezia, A. (2006). *Claiming common ground: State policymaking for improving college readiness and success*. (National Center Report #06-1). San Jose, California: National Center for Public Policy and Higher Education.

"Major demographic shifts in the population of the United States, combined with persistent gaps in educational achievement by ethnic groups, could decrease the portion of the workforce with college-level skills over the next 15 years, with a consequent decline in per capita personal income in the United States. Meanwhile, the competitive edge of the U.S. workforce is slipping; several other developed countries now surpass the United States in the percentage of their young working-age population enrolling in college and attaining a bachelor's degree. At a time when the knowledge-based, global economy requires more Americans with education and training beyond high school, the nation confronts the prospect of a sustained drop in the average educational levels of the U.S. workforce. This report identifies four state policy dimensions for improving college readiness and success: (1) the alignment of coursework and assessments; (2) state finance; (3) statewide data systems; and (4) accountability."

De Mello, V., Blankenship, C., & McLaughlin, D. (2009). *Mapping state proficiency standards onto NAEP scales: 2005–2007.* (NCES Report 2010 -456). Washington D.C.: National Center for Educational Statistics.

This document provides a way to compare proficient performance standards state-to-state by mapping state standards on the achievement scale of the National Assessment of Education Progress (NAEP). For purposes of this report, the 2005 and 2007 NAEP assessments for grades four and eight were used. The document offers three important benefits to stakeholders. First, it allows a state-to-state comparison of standards. Second, it allows states to assess their own standards with regard to whether the rigor of standards changed between 2005 and 2007. Last, where key aspects of state standards or assessments were unchanged, it allows NAEP to corroborate reported changes in student achievement.

Finn, C., Julian, L., & Pertilli, M. (2006). *To dream the impossible dream: Four approaches to national standards and tests for America's schools.* Washington D.C.: The Thomas B. Fordham Foundation.

Two obstacles loom over national standards and tests in K–12 education, in spite of the persuasive educational, political, and organizational reasons for implementing them. The first obstacle is political; to create national standards, a winning coalition must be assembled. The second obstacle is substantial; until policymakers can envision what such a system would look like, development and implementation are unlikely. This document addresses this second obstacle, and also, indirectly impacts the political challenge. Information in the document is based on the results of a query put to a bipartisan group of experts. Analysis of their responses revealed patterns that point to four possible approaches to the creation of national standards and tests. These are:

- The whole enchilada—the Federal government will develop and enforce national standards and assessments and implement a national accountability system for K–12.
- If you build it, they will come—The Federal government would develop national standards, assessments, and accountability models and offer them to states with incentives to participate in the system.
- Let's all hold hands—states would be encouraged to join together to create common standards and assessments possible with the use of incentives. This system would be voluntary.
- Sunshine and shame—state standards and assessments would be made more transparent, and easier to compare to one another and to the NAEP.

The paper examines each of these approaches, outlining how each might work in practice with particular reference to politics and process, scope and consequences, and evaluating how likely each is to

- End the "race to the bottom"
- Result in rigorous standards rather than just politically acceptable ones
- Expand Washington's role in education
- Prove politically feasible

Texas Higher Education Coordinating Board. (2008). *Texas college and career readiness standards*. Austin, Texas: Author.

As a result of legislation, in 2007 Texas created teams to develop College and Career Readiness Standards for the state in the areas of English/Language Arts, Mathematics, science, and social studies. Draft standards were posted for public comment after the October 2007 meeting of the Texas Higher Education Coordinating Board. Final drafts were submitted to the THECB in January 2008 and were subsequently incorporated into the Texas Essential Knowledge and skills. This document provides access to the standards.

Assessment

There is general agreement that existing assessment policies are not appropriate for the changing needs of the education system (Pinkus, 2009). Experts emphasize the need for balanced assessment systems that include the use of formative and performance assessments, rather than

relying exclusively on summative assessments such as high-stakes tests that may not only have unintended negative consequences, especially for vulnerable students, but also are often misaligned with the skills needed for college and career success (Perna, 2009). Stakeholders at the state level have an important role in creating content standards that encourage the development of appropriate assessments (Rabinowitz, 2006). There are a number of challenges to developing effective, aligned assessments at the high school level. First, there is consensus that states have too many content standards; as a result, teachers are not able to effectively teach all required content over a school year. Other challenges include reconciling basic skills tests with end-of-course tests, how to assess application of knowledge, teamwork, and identifying tests to use for AYP. As states move toward revised assessment programs, additional challenges related to logistics, security, cost, and training will emerge. However, states are moving toward revised, better-aligned assessment systems, and a number of approaches are being used effectively (Learning Point, 2009).

Pinkus, L.M. (Ed.; 2009). ***Meaningful measurement: The role of assessments in improving high school education in the twenty first century.*** **Washington D.C.: Alliance for Excellent Education.**

This document examines the role of assessment in meeting the educational challenges of the present—first, to change and raise expectations, and second, to improve the education system's ability to meet those expectations. The document asserts that the current assessment practices used by our education system fall short of meeting these challenges. They neither establish the goal of college and career readiness for all students nor support practices that will help meet this goal. Further, it suggests that meeting the current challenges will require rethinking assessment policies and the role of the Federal government in supporting assessment, and advocates specific changes in Federal policy. These are:

- Support the development of common standards and assessments.
- Support the timely and transparent communication and use of assessment results.
- Improve educators' capacity to use data to improve teaching and learning.
- Invest in research and development to improve our collective knowledge about the development and use of assessments in ways that improve teaching, learning, and student outcomes.

The document is a collection of essays by experts in the field of education; the essays that are included address issues that are relevant to the advocated changes and are divided into articles focused on assessment types and assessment issues.

Rabinowitz, S., Roeber, E., Schroeder, C., & Sheinker, J. (2006). ***Creating aligned standards and assessment systems.*** **Washington, D.C.: Council of Chief State School Officers.**

"This paper provides a discussion of lessons learned in addition to suggestions and recommendations to state departments and state policy makers for revising academic content standards in a manner to support the improved alignment of assessments with the standards. A checklist is provided to help states consider what actions they can take to enhance consistency

within and across content areas and to improve their usefulness in guiding the development of aligned assessments in the standards-based system.""

Redfield, D., Roeber, E., & Stiggins, R. (2008, June). *Building balanced assessment systems to guide educational improvement.* Paper presented at the National Conference on Student Assessment, Orlando, Florida.

This background paper for a keynote panel presentation at the National conference on Student Assessment in June of 2008 was intended to define terms related to assessment and to provoke discussion about the status of assessment, the future of assessment, and how to achieve balanced assessment systems. The paper contains four principles to guide stakeholders as they build balanced assessment systems. Developers must consider

- Purpose— assessment purposes needs to be clear and clearly articulated.
- Assessment adequacy— included assessments need to be appropriate and valid for meeting the purposes of the system.
- Communication of results—results must be communicated clearly and in a timely manner to the intended user.
- Support—adequate support needs to be provided so that system purposes can be met.
- Summative assessment, formative assessment, and benchmark assessments are briefly discussed.

Perna, L., & Thomas, S. (2008). *Barriers to college opportunity: The unintended consequences of state-mandated testing.* Educational Policy, *23*(3), 451–479.

"This study explores the ways that high school testing policies shape college opportunity among students attending 15 high schools in five states. The authors use multiple descriptive case studies to explore how testing policies influence key predictors of college enrollment (e.g., high school graduation, academic preparation, knowledge and information) and a high schools' capacity to promote college enrollment. The study identifies several unintended consequences of state-mandated high school tests for factors related to college enrollment and shows that the unintended negative consequences are greater at schools with the lowest average socioeconomic status and academic achievement than at other schools."

Learning Point Associates (2009). *Overview of selected state assessment systems*. Naperville, Illinois: Author.

This paper is part of an effort by Wisconsin DPI to gather information on innovative assessment practices. DPI hopes to gain insights and information to be used as in its assessment initiatives. Information was gathered from a total of nine states identified as having exceptional assessment practices in place using interview protocols developed by Great Lakes West. Information was focused on four types of assessment:

- Content-standards based assessment
- Interim and benchmark assessments
- Formative and classroom assessment

- On-line and computer-based assessments

The document is divided into sections based on these categories. Each section contains an overview of relevant issues and specific information gathered from states with outstanding practices. The section on content and standards-based assessments includes information relevant to college and career readiness, depth of standards, and rigor. Each section concludes with a summary. Participating states were Colorado, Kansas, Washington, West Virginia, Georgia, Iowa, Louisiana, New York, South Carolina, Vermont, and Wyoming. The paper concludes with a brief section identifying themes emerging from the information gathered.

Rural Schools

Preparing students for college is a significant undertaking. Changes in educational practice are required, and challenges to a successful effort exist in several areas. Good rural schools share certain characteristics that enable them to prepare students to be successful after they complete high school. Among these characteristics are rigorous, engaging curriculum and instruction; community connectedness; democratic practice; strong supporting structures; adequate, competent staffing; well-equipped, clean, safe facilities; and effective leadership (SREB, 2004). Preparing every student requires flexibility in the system to ensure that each student, no matter what their need, receives the education that will enable him or her to complete high school ready to succeed. This demands that educators embrace a difficult process of personal growth, moving out of their comfort zone, and building capacity to meet each student's needs. These changes, in turn, create a need for change in policies related to equity, access, and resources that require difficult decisions. In addition, data play an important part in supporting necessary changes (Ramsey, 2009).

Ramsey, B. (2009). *Creating a college ready system: Findings from four case studies*. Seattle, Washington: The Small Schools Project.

This report looks across four case studies of school districts facing the challenge of preparing students for college, career, and citizenship who received grants from the Gates Foundation to redesign their schools to make this happen. The document begins by examining the literature on transforming school districts. It then considers what is meant by "a college-ready system" with some emphasis on a college-readiness equation, developed by Duane Baker at the BERC Group, that breaks college readiness down into three components: college aware, college eligible, and college prepared, and looks at a definition of "college readiness." The document goes on to examine aspects of creating a "college-ready system" through the lens of the experiences of four schools, indicating that it is a process that is "on-going and continually refined." Some key concepts are:

- Differentiation and standardization
- Capacity building
- Equity, access, and resources
- Use of data

The document ends with a brief discussion of barriers to meeting the challenge of creating a college-ready system, but ends on a positive note by looking at what the experiences of these districts reflects about the process. The document offers some demographic information about each of the four districts included in the research.

Southern Governors Association, Southern Regional Education Board & the Rural School and Community Trust (2004). *Beating the odds: High- performing small high schools in the rural south*. Arlington,Virginia: Author.

"The Southern Rural High School Study Initiative seeks to identify high-performing rural high schools in the south, engage education leaders in the region in analyzing the challenges faced by these schools, and consider the public policies that might serve to transfer the lessons and strategies used by these schools to other small rural high schools in the region. The purpose of this paper is to discuss policy options based on both our prior knowledge and also site visits to five such high-performing small rural high schools serving high-poverty and/or high-minority populations."

The paper begins by offering seven principles for good rural high schools. These focus on

- Curriculum and instruction
- Community connectedness
- Democratic practice
- Supporting structures
- Staffing
- Facilities
- Leadership

For this project, 50 small rural schools were identified that met the criteria for high performance by a small rural school set by the project. Of these, five schools were selected for site visits. Information is provided in the document on how the five schools selected matched the criteria for high performance; shortcomings are also discussed. The document then offers suggestions for policies that would support the good practices seen in these schools. These were:

- Respect and support the advantages of smallness
- Mitigate the disadvantages of smallness
- Increase the capacity of small, low-wealth rural districts to attract and keep highly qualified teachers and administrators
- Modernize facilities
- Establish broader grade-span configurations
- Establish modest curricular requirements and enriched curricular opportunity
- Offer flexible assessments appropriate to smaller cohorts
- Authorize leaders to lead
- Authorize and fund education renewal zones
- Provide positive leadership

These recommendations are discussed in some depth. The document concludes with lessons learned, which are:

- "These schools are structurally simple but organically complex…. Doing well is less about programs, pedagogy, and professionalism than it is about how people treat each other."
- "Smallness is a blessing because it fosters relationships, but also because it the practices that make these schools successful—team teaching, consensus building, cooperative learning, and performance assessments."
- "It all begins with good leadership…."
- "The good work done in these schools is the hard work of caring, competent people, but not the work of genius."

The importance of flexibility and resources is also highlighted.

Urban Schools

Urban high schools typically face many challenges to successfully educating young people. Yet, some urban high schools do an exemplary job. Urban high schools that work generally focus on a core curriculum and college preparation, have a highly skilled faculty, committed to ensuring that every students succeeds, ensure that students have a personal connection with faculty and receive personal support, and have clear standards for all members of the school community (French, 2003). High schools can help students be college ready by focusing on four sets of skills essential to ensure that students are "college ready": core knowledge; content knowledge and basic skills; non-cognitive, or behavioral skills; and "college knowledge." In addition, high school students and teachers need clear benchmarks and standards indicating college readiness as well as clear indicators that allow schools to measure progress, assess where students are, and understand what the student needs to do to improve. Data play an important role in the system for successful urban schools, linking high school performance with college outcomes and providing information on college outcomes (Roderick, 2009).

Darling-Hammond, L. (2000). *Transforming urban public schools: The role of standards and accountability*. (Opinion Paper). Stanford, California: Stanford University, School of Education.

"This paper examines how urban school districts that have substantially improved student performance emphasize improvement of education guided by rigorous standards for teachers rather than high stakes testing for students. States and districts that rely on test-based accountability emphasizing sanctions for students and teachers often produce greater failure rather than success for educationally vulnerable students. The paper reviews research on various approaches to accountability and highlights successful reforms in urban settings that emphasize the use of standards for teaching and learning to guide investments in better prepared teachers, higher quality teaching, more performance oriented curriculum and assessment, better designed schools, more equitable and effective resource allocation, and more diagnostic supports for student learning. It argues for a broader conception of accountability that focuses on whether

policymakers' and practitioners' actions, in fact, produce better quality education and higher levels of learning for a greater share of students. It suggests that genuine accountability is achieved when school system policies and operating practices work both to provide good education and to correct problems as they occur. It concludes that raising standards for students so that they learn what they need to know requires raising standards for the system."

French, D., & Goldberber, S. (2003). ***Creating schools that work: Lessons for reform for from successful urban high schools*****. Boston, Massachusetts: Center for Collaborative Education**.

This document reports the results of a study from the Center for Urban Policy and Research that looks at nine successful urban high schools. The report indicates that, in general, the findings from this study are consistent with available information on high schools that work. These schools are highly focused on a core curriculum and college preparation, the faculty is highly skilled and committed to working together to help all students succeed, students are known by their teachers and receive personal support, and there are clear standards for all members of the school community. The document indicates that certain principles taken from the CERP study, if implemented, could lead to better success for students in urban high schools. These principles are:

- Small is better.
- Autonomy on matters of staffing, budget, curriculum, governance, and time is as important as size.
- Choice is associated with achievement.
- Extra resources make a difference.
- Well-conceived, structured, and supported inclusion programs can be effective in educating English language learners and special needs students.
- College and community partnerships help.
- Incorporating earlier grades is an effective strategy for closing the achievement gap in high school.
- Stronger schools and student-accountability provisions make a difference in creating academically challenging communities of learning.

After offering these insights, the document goes on to offer recommendations for implementation, both for districts and for states. These are:

- Create small schools high in grades 9–12.
- Provide small schools with charters like autonomy in matters of budget, staffing, curriculum, governance, time, and space.
- Create a stronger accountability model that holds schools accountable for having effective practices for all students.
- Leverage benefits of choice to build more effective school communities.
- Create effective inclusion programs.
- Create more 6–12 and 7–12 schools.

- Make college and community partnerships a cornerstone of state and district strategies to create high schools of excellence for low-income urban students and students of color.
- Provide high schools that enroll percentages of low-income students and other high-needs groups with increased resources.
- Provide strong incentives for higher performing urban schools to replicate their success.

Implementation of these recommendations is discussed in depth, both for districts and for state-level policymakers.

Roderick, M., Nagaoka, J., & Coca, V. (2009). College readiness for all: The challenge for urban high schools. *The Future of Children*, *19*(1), 185–210.

"Melissa Roderick, Jenny Nagaoka, and Vanessa Coca focus on the importance of improving college access and readiness for low-income and minority students in urban high schools. They stress the aspirations-attainment gap: although the college aspirations of all U.S. high school students, regardless of race, ethnicity, and family income, have increased dramatically over the past several decades, significant disparities remain in college readiness and enrollment.

The authors emphasize the need for researchers and policy makers to be explicit about precisely which sets of knowledge and skills shape college access and performance and about how best to measure those skills. They identify four essential sets of skills: content knowledge and basic skills; core academic skills; non-cognitive, or behavioral, skills; and "college knowledge," the ability to effectively search for and apply to college. High schools, they say, must stress all four.

The authors also examine different ways of assessing college readiness. The three most commonly recognized indicators used by colleges, they say, are coursework required for college admission, achievement test scores, and grade point averages. Student performance on all of these indicators of readiness reveals significant racial and ethnic disparities.

To turn college aspirations into college attainment, high schools and teachers need clear indicators of college readiness and clear performance standards for those indicators. These standards, say the authors, must be set at the performance level necessary for high school students to have a high probability of gaining access to four-year colleges. The standards must allow schools and districts to assess where their students currently stand and to measure their progress. The standards must also give clear guidance about what students need to do to improve.

College readiness indicators can be developed based on existing data and testing systems. But districts and states will require new data systems that provide information on the college outcomes of their graduates and link their performance during high school with their college outcomes."

High School Improvement

Research indicates that high-performing high schools have several characteristics in common. These center around high academic goals, a culture of collaboration, differentiation to reach all students, effective use of data, and a supportive school climate. State-level support is key to ensuring that all these pieces are in place (Dolejs, 2006). High schools face numerous challenges to their effectiveness, but they also have unique opportunities for improvement in the current educational climate. Among these are the opportunity to innovate, to develop national standards, to re-examine the meaning of a high school education, and to participate in rigorous research on reform (The Future of Children, 2009).

Dolejs, C. (2006). ***Report on key practices and policies of consistently higher performing high schools*****. Washington D.C.: National High School Center.**

This report focuses on high-performing high schools, examining the ways educators, administrators, and students set and meet high expectations for all students. The report was developed specifically with state policymakers in mind to provide them with suggestions on how they can support initiatives that correlate with academic achievement. While details of practice may vary from one school to another, high-performing schools have in common a set of basic elements:

- They set high academic goals consistent with or exceeding state standards.
- Their professional development programs foster a culture of collaboration.
- Educators embrace broader learning objectives than those that support their own subject area and use differentiation strategies to reach all students.
- Teachers use student achievement data to make decisions about teaching.
- Schools recognize student and teacher achievement within a context of support.

State leaders play a critical role. State-level initiatives can include providing explicit details about

- Setting academic standards
- Coordinating state policy about teacher quality and taking an active role in guiding and supporting professional development for high school teachers
- Administering access to literacy coaches and supporting technology advancement
- Guiding educators on how to collect, analyze, and report data so they are compatible across the state

Information for this report was collected using a case-study methodology. Investigators visited 74 high-performing schools across 10 states to isolate the practices used across these exemplary schools. The schools ranged widely in population and demographics; the practices shared in this report are widely applicable. Schools visited were selected on the basis of a set of criteria that included

- Achievement among both poorly prepared and well-prepared students
- Performance in relation to demographically comparable schools

Site visits and interviews were guided by standardized protocols.

The Future of Children (2009). *America's high schools*. *19*(1). Princeton, New Jersey: Author.

The purpose of this volume of The Future of Children is to examine the challenges facing American high schools, and to consider what is known about what works—and what does not—in high school reform, with a particular focus on low-performing schools. The challenges fall into six categories:

- Helping students make the transition from ninth grade to high school
- Keeping students from dropping out
- Reforming the structure of high school
- Upgrading the rigor and relevance of the curriculum
- Promoting better instructional strategies
- Preparing students for postsecondary education and the workplace

The current education and policy-related climate offers stakeholders unique opportunities. Among these:

- Invest in innovative interventions.
- Develop national minimum high school graduation requirements.
- Re-examine the goals of a high school education.
- Commit to rigorous research on reforms.

The volume contains nine articles relevant to the topic. These are:

- Can the American High School Become an Avenue of Advancement for All?
- How Do American Students Measure Up? Making Sense of International Comparisons
- Falling Off Track during the Transition to High School: What We Know and What Can Be Done
- Finishing High School: Alternative Pathways and Dropout Recovery
- **Improving Low-Performing High Schools: Searching for Evidence of Promise**
- U.S. High School Curriculum: Three Phases of Contemporary Research and Reform
- Instruction in High Schools: The Evidence and the Challenge
- College Readiness for All: The Challenge for Urban High Schools
- Expanding Policy Options for Educating Teenagers

College Readiness and Latino Students

Current research indicates that Latino students are making progress in increasing college readiness (ACT, 2007). However, an achievement gap still exists. Standards and accountability are powerful tools in the effort to close this gap. Even so, certain conditions must be in place for them to work for Latino students; there must be adequate resources, teacher quality and curricula, there must be fair and accurate performance measures to assess achievement, and

effective interventions and strategies must be in place for students who are not meeting standards (White House Initiative on Educational Excellence for Hispanic Americans, 2000).

ACT. (2007). *State of college readiness for Latino students*. Iowa City: Author.
This report looks at the readiness of Latino students by exploring the answers to a set of seven questions. The answers to these questions are based on considerable data and, overall, indicate that Latino students are increasing their college readiness. Recommendations for continued improvement are included.

White House Initiative on Educational Excellence for Hispanic Americans (2000). *Educational standards, assessment and accountability: A new civil rights frontier*. Washington, D.C.: Author.
"A series of four policy seminars was held in 1999 to discuss suggestions to ensure that Latino children reap the benefits of standards based accountability and to illuminate related issues…" This report is a summary of these seminars. The document begins with a brief examination of some issues relevant to the education of Hispanic students in the current educational system. Two critical issues touched on are the rapid growth of the Hispanic population, and the achievement gap that exists to the detriment of these students. The document then turns briefly to the standards movement and standards-based reform, looks at the national context, offering examples from some states, and touches on parent involvement. After offering this background, specific information is provided on what conditions must be in place for standards to work for Latino students. These conditions include:

- Adequate resources, teacher quality and curricula
- Fair and accurate performance measures to ensure that students are achieving desired results
- Effective interventions and educational strategies to ensure that students who are not meeting standards can succeed

Lessons from research and experience are offered. These focus primarily on testing conditions for Latino students. Model practices are highlighted, as are some worrisome practices. The document then poses questions—both basic questions for educators and emerging questions, and ends with action items for the near future.

Standards and Special Needs Students

Mid-Continent Research for Education and Learning (2000). *Including special needs students in standards-based reform: A report from McRELs' diversity roundtable.* Aurora, Colorado: Author.
This document is a compilation of three research-based papers from a roundtable discussion held by McREL in 2000. It is organized into five chapters; chapter one serves as an introduction to the topic, chapters two through four are the research papers. These discuss aspects of standards-

based assessment as they impact special needs students, and chapter five provides a conclusion and examines how educators can act to improve the education of special needs students.

Additional Information

This section contains additional resources that may be of interest.

Ellerson, N. (2009). *Schools and the stimulus: How America's public school districts are using ARRA funds*. Arlington, Virginia: American Association of School Administrators.

This brief document reports the results of a survey by the American Association of School Administrators that asked AASA members about the status of AARA money across their districts; 160 school administrators from 37 states responded to the survey. Of these, 63% of respondents were from rural districts, 28% were suburban and 9% were urban. The top five reported uses for ARRA and SFSF funds were:

- Professional development
- Saving personnel positions
- Classroom technology
- Classroom equipment/supplies
- Software

Survey results indicated that:

- A majority of respondents had received their ARRA Title I monies; 94% had received IDEA funds, and 63% had received SFSF funds.
- Fewer than half of respondents reported being able to save core or special education teaching positions using the funds.
- A slight majority say they have used, or plan to use, ARRA funds to save personnel overall.
- Many respondents report using funding for one-time costs.
- Many respondents report difficulty using funds for improvements or innovation when funding is needed to fill budget holes left by declining education budgets. Some respondents, 67%, indicate that funding is being used either to support budgets or they represent only marginal budget increases. They also comment on the looming "cliff effect" when ARRA funding is spent.
- Respondents indicated that more flexibility in regulations would have made it easier to implement innovation and reform.
- Respondents report an increased level of beauracracy associated with the funding that limits time and ability to implement reform and innovation.

ACT. (2007). ***Aligning post secondary expectations and high school practice: The gap defined: Policy implications of the ACT National Curriculum Survey results 2005–2006.*** **Iowa City, Iowa: Author.**

Every three-to-five years, ACT conducts a nationwide survey of educational practices and expectations. The survey collects information from thousands of middle school, high school, and postsecondary teachers in English, math, and science to determine what is currently being taught that is considered important for college readiness from seventh grade through the first year of college. The survey identifies the gap between postsecondary expectations and high school practice. This report highlights key findings from the survey, which are:

- What postsecondary instructors expect of entering students is much more targeted and specific than what high school teachers consider important.
- Remedial course teachers' ratings of math and reading skills align more closely with those of postsecondary instructors than with those of high school teachers.
- Though most secondary teachers believe that meeting state standards in their subject area prepares students for college level work, most college instructors disagree.
- High school teachers believe that today's high school graduates are less well prepared for college-level work than those from previous years; most postsecondary instructors see no difference.

There are specific differences between high school instruction and postsecondary expectations across the curriculum.

ACT's Planning and Assessment systems are aligned with the content and skills that are important for college readiness.

Implications for policymakers and educators are detailed, and action steps are also included.

ACT. (2009). The path to career success: ***High school achievement, certainty of career choice and college readiness make a difference: Issues in college success*****. Iowa City, Iowa: Author.**

This study examined three indicators of early career success:

- College degrees obtained in career field of interest
- Job attainment in career field of interest
- Job satisfaction

Data for the study were obtained from the ACT Alumni Outcomes Study that included 12,019 full-time employees who earned degrees from 293 colleges in 39 states. Data were taken from high school ACT scores of these individuals and surveys of their college experience, their job, and their job satisfaction. Study results indicate that academic achievement, certainty about career choice, and college readiness in all four subject areas correlate with early job success; they are good predictors of degree completion, jobs in a chosen field, and job satisfaction. Literature to the study is referenced, and suggestions to help high school students understand the importance of academic achievement and career planning are provided.

State Educational Technology Directors Association. (n.d.). *States helping states*. Glen Burnie, Maryland: Author.

This article focuses on how technology can be integrated into each of the four ARRA Assurances. For Assurance One, "Making progress toward rigorous college and career ready standards and high-quality assessments that are valid and reliable for all students, including English language learners and students with disabilities," the document examines the use of technology in formative assessment and also looks at online assessments. Examples of successful practices are included.

http://www.achieve.org/node/604- This is the website of the American Diploma Project.

Methodology

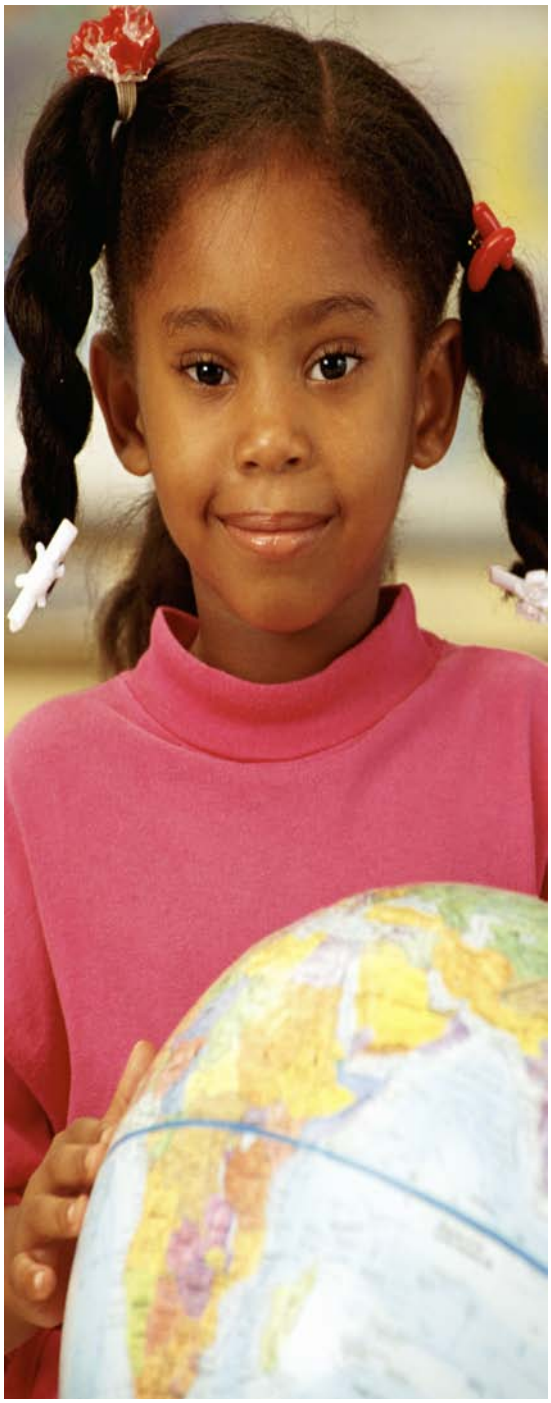
This report was developed using these search terms:

- Standards
- Rigorous standards
- Rigor and standards
- ARRA assurances and standards
- ARRA assurances and assessments
- ARRA assurances
- ARRA and assessments
- Rigorous assessments
- Rigor and assessments
- College ready standards
- Career ready standards
- English language learners and standards
- English Language Learners and assessments
- Disabled students and assessments
- Disabled students and standards
- High quality assessments
- Effective assessments
- College ready and assessments
- Rigor and assessments
- Rigorous assessments
- Rural schools and standards
- Rural schools and assessments
- Rural schools and improvement
- Urban schools and standards
- Urban schools and assessments
- Urban schools and improvement

Using the following sources:

- Google
- Google Scholar
- ERIC
- Academic Search Premiere
- WilsonWeb
- JSTOR
- American Education Research Journal
- Review of Educational Research
- Manpower Demonstration Research Corporation (MDRC) http://www.mdrc.org/
- Mathematica http://www.mathematica-mpr.com/education/
- RAND Corporation http://www.rand.org/
- The Campbell Collaboration (Education Coordinating Group) American Institutes of Research (AIR) http://www.air.org/ehd/default.aspx
- U.S. Government Accountability Office (GAO) http://www.gao.gov/docsearch/topic.php ECS Research Studies Database http://www.ecs.org/rs/SearchEngine/SearchCriteria.aspx
- IES National Center for Education Evaluation and Regional Assistance (NCEE) http://ies.ed.gov/ncee/pubs/
- IES National Center for Education Research (NCER) http://ies.ed.gov/ncer/projects/
- Educational Research Online http://edres.org/
- Education Commission of the States
- National Governor's Association

REGIONAL EDUCATIONAL LAB March 2010, EBE # 591A



We provide research based information on educational initiatives happening nationally and regionally. The EBE Request Desk is currently taking requests for:

- **Research on a particular topic**
- **Information on the evidence base for curriculum interventions or professional development programs**
- **Information on large, sponsored research projects**
- **Information on southeastern state policies and programs**

For more information or to make a request, contact:

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