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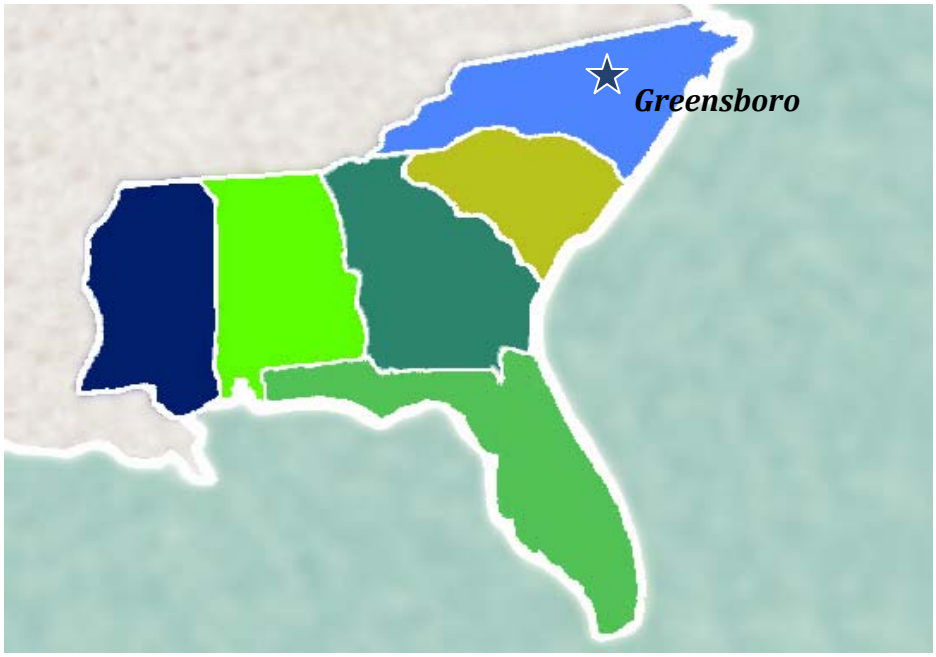
EVIDENCE BASED EDUCATION REQUEST DESK

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:

Indicators that students are on track to graduate from high school ready for college and careers (college and career-readiness literature)

RESPONSE

Indicators that students are on track to graduate from high school ready for college and careers (college and career-readiness literature)

Summary[1]

College Readiness

College readiness, operationally defined by David Conley (2007), one of the contemporary "thought leaders" in the measurement of college readiness, as "the level of preparation a student needs in order

[1] This summary was excerpted verbatim from a quick-turnaround document on career and college readiness created by REL-West: REL-West at WestEd. (May 2010). *Indicators of college - and work- readiness (and early indicators of dropout)*. San Francisco, CA: Author. Available at http://relwest.wested.org/system/memo_questions/3/attachments/original/College_20and_20work_20readiness_20May_202010_1_.pdf

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REL SOUTHEAST Regional Educational Laboratory

to enroll and succeed—without remediation—in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program," requires a stronger alignment between standards, assessments, policies, and coursework at the high school and postsecondary levels. The growth of local and state-level P-16/P-20 Councils, including in California, and their work in vertical curriculum alignment is an outgrowth of this recognized need for improved college readiness (see the Education Commission of the States website for information on state level councils, which have been established in a majority of states: http://mb2.ecs.org/reports/Report.aspx?id=2051). In fact, college and career readiness is at the center of the Obama administration's education agenda.

A national leader on this issue has been the American Diploma Project Network (ADP). This coalition of 34 states is dedicated to aligning standards, graduation requirements, assessments, and accountability policies with the demands of postsecondary study and careers. The ADP coalition shares the common goals of alignment of high school standards and assessments, a rigorous curriculum, streamlining of state assessments to also serve as work and college readiness tests, and holding high schools accountable for graduating students ready for careers and college and postsecondary institutions for student success. Each state member of the ADP develops its own plan to achieve these common goals (Achieve, Inc., 2008). Indiana, for example, has developed a rigorous set of courses called the Core 40 that specifically prepares students for college and careers. The state is working on policies to require all high school students to complete the Core 40 as a diploma requirement and to make completion of these courses a minimum requirement for admission to Indiana's four-year institutions (Achieve, Inc., 2008).

Texas has been working to improve college readiness through the alignment of standards, assessments, policies, and coursework at the high school and postsecondary levels. The state was one of the first in the nation to offer a college-preparatory curriculum as the default curriculum for all students. Its college readiness standards, developed collaboratively by the Texas Education Agency and the Texas Higher Education Coordinating Board, and adopted in 2008, align the high school curriculum with college and workforce expectations. Examples of performance indicators that assess and measure performance expectations at the classroom level are included in the college readiness standards document (Texas Higher Education Coordinating Board, 2008).

Using longitudinal student-level data from two states, Arkansas and Texas, NCEA researchers set college- and career-readiness performance targets, or "test scores that indicate a student is on track to be academically prepared for college by the time he or she finishes high school," in two steps. First, at the student level, the researchers linked test scores in an upper grade (11th or 12th grade) to students' college outcomes to establish the targets. Second, they backward-mapped the upper-grade performance targets to lower graders (8th grade). Dougherty (2010) suggests that performance targets can be identified on state tests where student-level longitudinal data are available for at least one grade and information on statistical distributions are available for all of the grades. States can link their state test results to one or more ACT tests which have established benchmarks.

Notably, there are conceptions of college readiness that extend beyond academic preparation. Child Trends' recent report, *A Developmental Perspective on College and Workplace Readiness* (Lippman et al., 2008), identified college readiness competencies in the developmental domains of psychological development (e.g., self-management), social development (e.g., oral communication skills), cognitive development (e.g., high-level math courses), and spiritual development.

This broader conception of college readiness is aligned with work by Conley (2007), who proposes the general categories of cognitive strategies, academic knowledge and skills, academic behaviors, and contextual skills and awareness as part of his college readiness conceptual framework. Notably, Conley's academic behaviors category includes self-awareness, self-monitoring, and self-control, behaviors that align to some degree with Child Trends' psychological development domain. His category of contextual skills and awareness include behaviors such as collaboration and communication, suggesting an alignment with Child Trends' social development domain.

Assessment of College Readiness

Assessment of college readiness has been a matter of growing concern for the past decade. There also has been growing interest in using college performance, including enrollment in remedial courses, as a posthoc indicator of college readiness (see Strong American Schools, 2008).

Historically, admissions departments of colleges and universities have used as measures of college readiness, student performance on standardized college entrance exams, especially the SAT and the ACT. Other measures commonly used by colleges and universities include student performance on Advanced Placement examinations, high school GPA, and high school course-taking patterns, including the titles, perceived challenge level, and the number of units required for graduation (Conley, 2007; Greene & Forster, 2003). Of note, ACT offered its own indicator system for college readiness by establishing College Readiness Benchmarks representing the minimum ACT test scores required for students to have a high probability of success in corresponding first-year college courses (ACT 2006; Conley, 2007). And the California State University system developed the Early Assessment Program (EAP), which includes augmented testing in 11th grade and the opportunity for additional preparation in the 12th grade so that college-bound high school graduates have the English and mathematics skills expected by the state university (see http://www.calstate.edu/eap/documents/eap_program_description.pdf), without remediation.

There has been growing interest by members of the research community and state policymakers to develop more sophisticated methods of assessing college readiness, including indices and indicator systems based on multiple measures. Berkner and Chavez, in their 1997 statistical analysis report of data drawn from the National Education Longitudinal Study of 1988 (NELS:88), utilized a college qualification index that ranked students by their level of qualification for college study. The index was based on five criteria—grade point average in academic courses, class rank, score on the NELS test (an NCES aptitude test), and SAT and/or ACT scores. Each student was judged based on his or her highest scoring criterion. In addition to these five criteria, students' rankings were adjusted upwards by one rank if they had taken "rigorous academic coursework," which NCES defined as having taken four years of English;

three years each of natural science, social science, and math; and two years of foreign language. Students ranked as "very highly qualified" were moved down a rank if they had not taken such courses (Berkner & Chavez, 1997, pp. 21–22, 24).

David Conley (who participated in the development of the Texas College Readiness Standards) argued in his 2007 paper, *Toward a More Comprehensive Conception of College Readiness*, that existing indicators do not adequately assess students' preparation for success in postsecondary study. What he proposes is a comprehensive approach that assesses key cognitive strategies including analysis, interpretation, precision and accuracy, problem solving, and reasoning; specific types of content knowledge; attitudes and behavioral attributes that students who succeed in college must demonstrate, including study skills, time management, awareness of one's performance, persistence, and the ability to utilize study groups; contextual knowledge that a student must possess to be ready for college, including understanding how to apply to college and how to manage financial aid issues. This comprehensive approach to assessment of college readiness would require multiple measures including collection of evidence to assess key cognitive strategies, a series of end-of-course exams to assess key content knowledge, and questionnaires to gauge student contextual knowledge of the entire process of college admissions, financial aid, and successful functioning in college. Conley suggests that measurement of key academic behaviors, such as study skills and time management, will require the development of a measurement tool that will provide a fine-grained assessment of student competence. He envisioned that the set of scores or indicators across these multiple dimensions could be tracked over time through middle and high school, providing both formative as well as summative data on individual and aggregate college readiness (Conley, 2007).

Annotated Bibliography

Achieve and The Education Trust (November 2008). ***Making college and career readiness the mission for high schools: A guide for state policymakers.*** **Available at http://www.achieve.org/files/MakingCollegeandCareerReadinesstheMissionforHighSchool.pdf**

Excerpt: In order to transform all of our high schools into engines for enabling all students to acquire the knowledge and skills that they need—and that we need them to have—states have to step up to a whole new set of responsibilities that go well beyond where most states have gone before. This document is a guide to help committed state leaders think through this new set of responsibilities. Prepared with the guidance of outside experts and informed by a rich set of discussions with 28 state and local leaders and experts who formed an advisory group to help us work through the possibilities, this document is formatted as a guide for broad-based discussions of next steps in every state.

ACT, Inc. (2007). ***ACT's college readiness standards and college readiness benchmarks: Helping to prepare every student for college and work.*** **Iowa City, IA: Author. Available at http://www.act.org/standard/pdf/CRS.pdf**

Excerpt: ACT's Educational Planning and Assessment System (EPAS) is an integrated series of assessment and career planning programs—EXPLORE (grades 8 and 9), PLAN (grade 10), and the ACT (grades 11 and 12)—designed to help students increase their academic readiness for college. This article provides College Readiness Benchmark Scores on all three programs, including the EXPLORE scores of students in 8th and 9th grades, in the subjects of English, Mathematics, Reading, and Science. These scores are considered early indicators of likely college success.

ACT. (2008). ***The forgotten middle: Ensuring that all students are on target for college and career readiness before high school.*** **Iowa City, IA: Author. Available at http://www.act.org/research/policymakers/pdf/ForgottenMiddle.pdf**

Excerpt: "This report examines the specific factors that influence college and career readiness and how these factors can have their greatest impact during a student's educational development. This report suggests that, in the current educational environment, there is a critical defining point for students in the college and career readiness process—one so important that, if students are not on target for college and career readiness by the time they reach this point, the impact may be nearly irreversible. We must therefore also focus on getting more students on target for college and career readiness by the end of eighth grade, so that they are prepared to maximize the benefits of high school.

Our research shows that, under current conditions, the level of academic achievement that students attain by eighth grade has a larger impact on their college and career readiness by the time they graduate from high school than anything that happens academically in high school. This report also reveals that students' academic readiness for college and career can be improved when students develop behaviors in the upper elementary grades and in middle school that are known to contribute to successful academic performance" (p. 2)

ACT. (2011). ***Affirming the goal: Is college and career readiness an internationally competitive standard?*** **Iowa City, IA: Author. Available at http://www.act.org/research/policymakers/pdf/AffirmingtheGoal.pdf**

Executive Summary excerpts: Moving from idiosyncratic sets of state standards to common standards focused on college and career readiness for all students is a monumental moment in our country's educational history. College and career readiness, defined through ACT research, is the level of preparation a student needs to be ready to enroll and succeed in—without remediation—a first-year, credit-bearing course at two- or four-year institutions or in trade or technical schools. ACT research also demonstrated that the level of knowledge and skills needed for workforce training programs after high school is comparable to that needed for college readiness. This convergence in the skills and knowledge that all students need to learn by the end of high school to be ready to succeed in college or career provides a common expectation for K–12 education, which is a first for our nation. The Common Core State Standards in English language arts and mathematics are based on this definition of college and career readiness.

ACT performed a linking analysis to identify the PISA scores in reading and mathematics that are equivalent to the college and career readiness benchmark scores on PLAN®, ACT's tenth-

grade college and career readiness assessment. These benchmark scores represent being on target for readiness. The linking analysis was based on 2,248 U.S. tenth-grade students from 77 high schools who tested under standardized conditions with both PLAN and a special administration of PISA. By linking the tenth-grade college and career-readiness benchmarks to the PISA scale, ACT determined if the college and career-readiness performance standards for U.S. students in these two subjects was competitive with the performance of students in other countries.

The linking analysis affirms that the performance standards of college and career readiness—and therefore the new Common Core State Standards—are competitive with the highest performing nations in the world. In fact, the average scores of only four countries were significantly higher than the benchmark scores in reading and in mathematics. Because the benchmark scores fell well within the average scores of the highest performing countries, college and career readiness is the right goal for U.S. education.

Empirically derived from the actual performance of students in college, ACT's College Readiness Benchmarks are the minimum scores required on the ACT subject tests for high school students to have approximately a 75 percent chance of earning a grade of C or better, or a 50 percent chance of earning a grade of B or better, in selected credit-bearing courses commonly taken by first-year college students: English Composition; College Algebra; Biology; and social sciences courses such as History, Psychology, Sociology, Political Science, or Economics.

Data from 98 institutions and more than 90,000 students were used to establish the benchmarks. The data were weighted to be nationally representative of two- and four-year postsecondary institutions nationwide.

ACT. (2010). ***What are ACT's College Readiness Benchmarks?*** **Iowa City, IA: Author. Available at http://www.act.org/research/policymakers/pdf/benchmarks.pdf**

Excerpt: ACT's College Readiness Benchmarks are the minimum ACT test scores required for students to have a high probability of success in credit-bearing college courses—English Composition, Social Sciences courses, College Algebra, or Biology. In addition to the Benchmarks for the ACT® test, there are corresponding EXPLORE® and PLAN® Benchmarks for use by students who take these programs in the eighth and tenth grades, respectively, to gauge their progress in becoming ready for college. And for students taking COMPASS®, a computer-adaptive course placement assessment used by colleges, we have identified the College Readiness Benchmarks on the COMPASS scale corresponding to success in credit-bearing community college courses.

ACT's College Readiness Benchmarks College Course or Course Area	Test	EXPLORE Score	PLAN Score	ACT Score	COMPASS Score*
English Composition	English	13	15	18	77
Social Sciences	Reading	15	17	21	88

College Algebra	Mathematics	17	19	22	52
Biology	Science	20	21	24	n/a

* The COMPASS English Benchmark refers to the COMPASS Writing Skills Test. The COMPASS Mathematics Benchmark refers to the COMPASS Algebra Test. COMPASS does not contain a science test.

[ACT also found that three of the ten academic behaviors it studied had impact on grade-point average in ninth grade: academic discipline, orderly conduct, and having positive relationships with school personnel.]

Berkner, L., & Chavez, L. (1997). *Access to postsecondary education for the 1992 high school graduates* (Statistical analysis report, NCES 98-105). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement. Available at http://nces.ed.gov/pubs98/98105.pdf

Abstract: This report uses data from the National Education Longitudinal Study of 1988 (NELS:88) to examine access to postsecondary education of 1992 high school graduates by 1994, two years after high school graduation. After an overview of the postsecondary enrollment rates of the 1992 high school graduates by family income, race-ethnicity, and parental levels of education, the report focuses on the factors associated with the relatively low four-year college enrollment rates of Hispanic, black, and low-income high school graduates. It examines college costs and financial aid, the educational expectations and immediate college plans of the high school graduates and their academic preparation, as measured by a four-year "college qualification index" developed for this study.

Building Better Students: Preparation for Life After High School. Research Conference, December 8–10, 2010.

[This conference was sponsored by Educational Testing Service, the College Board® and The American Educational Research Association. See http://www.ets.org/c/15481/videos.html for complete list of presentations, PowerPoints, and video.]

- David Conley—Education Policy Improvement Center (EPIC), Center for Educational Policy Research (CEPR), University of Oregon

"From Unidimensional to Multidimensional Cognitive Indicators of College and Career Readiness: Where Are We in the Journey?"

View Presentation Slides (PowerPoint)

Watch Video

- Neal Schmitt—Michigan State University

"Combining Cognitive and Non-cognitive Measures: Expanding the Domain of College Performance and its Prediction"

View Presentation Slides (PowerPoint)

Watch Video

- Alberto Cabrera and Erin W. Bibo—University of Maryland

"Starting Early, Staying on Track: A Chronological Review of Critical Steps Along the Path to College"

View Presentation Slides (PowerPoint)

Watch Video

California Legislative Analyst's Office. (2010). *The Master Plan at 50: Greater than the sum of its parts—Coordinating higher education in California* (Testimony of Higher Education Director to the Joint Committee on the Master Plan for Higher Education). Sacramento, CA: Legislative Analyst's Office. Available at http://www.lao.ca.gov/reports/2010/edu/ed_coordination/ed_coordination_012810.pdf

Excerpt: Coordination is necessary to guide public higher educational institutions toward collectively meeting state needs. Several states provide valuable examples of effective coordination leading to improved outcomes for students and states. Drawing on some of these examples, we recommend several legislative actions to improve coordination of higher education in California.

Conley, D. (2007). *Toward a more comprehensive conception of college readiness*. Eugene, OR: Educational Policy Improvement Center. Available at http://www.collegiatedirections.org/2007_Gates_CollegeReadinessPaper.pdf

Excerpt: The purpose of this paper is to provide an operational definition of college readiness that differs from current representations of this concept primarily in its scope. The paper suggests that, while much has been learned about this phenomenon, particularly during the past 20 years, few systematic attempts have been made to integrate the various aspects or components of college readiness that have been investigated in some depth during this period of time. As a result, college readiness continues to be defined primarily in terms of high school courses taken and grades received along with scores on national tests as its primary metrics.

***Diplomas Count 2008: School to college: Can state P16 councils ease the transition?* (2008). Bethesda, MD: Editorial Projects in Education Research Center. Available at**

http://www.edweek.org/ew/toc/2008/06/05/index.html
Abstract: This year's edition of *Diplomas Count*—a report by *Education Week* and the Editorial Projects in Education Research Center—examines the status of state P-16 councils and whether they can help smooth the road for young people on their way to productive work and citizenship. It also includes graduation rates by U.S. congressional district so that federal lawmakers who craft and monitor such policies can better understand their importance.

Dougherty, C. (2010). ***Using the right data to determine if high school interventions are working to prepare students for college and careers.*** **Washington, DC: American Institutes for Research. Available at http://www.betterhighschools.org/docs/NCEA_CollegeCareerReadiness.pdf**
Abstract: This report is designed to guide educators in collecting and analyzing valuable student achievement data that can help them determine if and how high school interventions for underprepared students are working to effectively prepare them for college and careers.

The Education Trust—West. (2010). ***San Jose Unified School District: A case study: Preparing students for college and career.*** **Oakland, CA: Author. Available at http://www.edtrust.org/west/publication/san-jose-unified-school-district-acase-study-preparing-students-for-college-and-ca**
Excerpt: This case study examines the challenges and successes the leaders of San Jose Unified School District faced in navigating uncharted waters toward the destination of college-ready graduates. It became the first district in the state to expect students to complete the University of California and California State University systems' entrance requirements (commonly called the A-G requirements) to earn a high school diploma.

Finkelstein, N.D., & Fong, A.B. (2008). ***Coursetaking patterns and preparation for postsecondary education in California's public university systems among minority youth*** **(Issues & Answers Report, REL 2008–No. 035). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Available at http://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2008035.pdf**
Excerpt: This report finds that the high school program for college preparation begins in 9th grade and that making up missed preparatory courses and academic content is likely to be difficult for students who put off college-preparatory work until later in their high school career.

Garcia, D.R., McIlroy, L., Dong, H., & Ackman, E. (May 2011). Is Arizona College Ready? ***Policy Points, 3*****(2). http://arizonaindicators.org/sites/default/files/content/publications/PolicyPoints-vol3-issue2.pdf**

"Description: The College Readiness report provides school-level results on the percentage of high school graduates from Maricopa County district and charter high schools that are college ready upon entering either the Maricopa County Community College system or one of Arizona's three public universities the year following high school. The report includes the postsecondary outcomes of high school graduates from the classes of 2005 through 2009."

Greene, J., & Forster, G. (2003). ***Public high school graduation and college readiness rates in the United States.*** **New York: Center for Civic Innovation, Manhattan Institute. http://www3.northern.edu/rc/pages/Reading_Clinic/highschool_graduation.pdf.**

Executive Summary: Students who fail to graduate high school prepared to attend a four-year college are much less likely to gain full access to our country's economic, political, and social opportunities. In this study we estimate the percentage of students in the public high school class of 2001 who actually possess the minimum qualifications for applying to four-year colleges. To be "college ready" students must pass three crucial hurdles: they must graduate from high school, they must have taken certain courses in high school that colleges require for the acquisition of necessary skills, and they must demonstrate basic literacy skills.

Using data from the U.S. Department of Education, we are able to estimate the percentage of students who graduate high school as well as the percentage that finish high school ready to attend a four-year college. We are also able to produce these estimates by racial/ethnic group as well as by region and state.

Specifically, the study's findings include the following:
• Only 70% of all students in public high schools graduate, and only 32% of all students leave high school qualified to attend four-year colleges.
• Only 51% of all black students and 52% of all Hispanic students graduate, and only 20% of all black students and 16% of all Hispanic students leave high school college-ready.
• The graduation rate for white students was 72%; for Asian students, 79%; and for American Indian students, 54%. The college readiness rate for white students was 37%; for Asian students, 38%; for American Indian students, 14%.
• Graduation rates in the Northeast (73%) and Midwest (77%) were higher than the overall national figure, while graduation rates in the South (65%) and West (69%) were lower than the national figure. The Northeast and the Midwest had the same college readiness rate as the nation overall (32%), while the South had a higher rate (38%) and the West had a lower rate (25%).
• The state with the highest graduation rate in the nation was North Dakota (89%); the state with the lowest graduation rate in the nation was Florida (56%).
• Due to their lower college readiness rates, black and Hispanic students are seriously underrepresented in the pool of minimally qualified college applicants. Only 9% of all college-ready graduates are black and another 9% are Hispanic, compared to a total population of 18-year olds that is 14% black and 17% Hispanic.
• We estimate that there were about 1,299,000 college-ready 18-year-olds in 2000, and the actual number of persons entering college for the first time in that year was about 1,341,000. This indicates that there is not a large population of college-ready graduates who are prevented from actually attending college.
• The portion of all college freshmen that is black (11%) or Hispanic (7%) is very similar to their

shares of the college-ready population (9% for both). This suggests that the main reason these groups are underrepresented in college admissions is that these students are not acquiring college-ready skills in the K–12 system, rather than inadequate financial aid or affirmative action policies.

Kuh, G., Kinzie, J., Buckley, J.A., Bridges, B., & Hayek, J. (2006). ***What matters to student success: A review of the literature*****. Commissioned Report for the National Symposium on Postsecondary Student Success: Spearheading a Dialog on Student Success. National Postsecondary Education Cooperative. Available at http://nces.ed.gov/npec/pdf/Kuh_Team_Report.pdf**

Abstract: This report examines the array of social, economic, cultural, and educational factors related to student success in college, broadly defined. After summarizing the major theoretical perspectives on student success, the report synthesizes the research findings related to students' background and precollege experiences, students' postsecondary activities emphasizing engagement in educationally purposeful activities, postsecondary institution conditions that foster student success, and the desired outcomes of college and postcollege as indicators of success. It offers seven propositions about what matters to student success that lead to recommendations to promote student success, and areas where additional research is needed to increase the odds that more students "get ready," "get in," and "get through."

Lippman, L., Atienza, A., Rivers, A., & Keith, J. (2008). ***A developmental perspective on college & workplace readiness.*** **Washington, DC: Child Trends. Available at http://www.childtrends.org/Files//Child_Trends-2008_09_15_FR_ReadinessReport.pdf**

Excerpt: This report provides a developmental perspective on what competencies young people need to be ready for college, the workplace, and the transition to adulthood. National handwringing about the lack of preparedness of high school graduates for college and the workplace has catalyzed researchers, educators, and policymakers to define the skills and competencies students need in order to be successful. These prescriptions tend to focus *either* on college readiness *or* on workplace readiness. At the same time but on a separate track, youth development research has identified the assets that youth need in order to make a successful transition to adulthood. Presumably, these three groups of competencies should overlap. Do high school students need the same competencies in order to be ready for college, the workplace, and a healthy transition to adulthood? If so, is there agreement on what competencies are needed? If not, how do the necessary competencies differ across these three areas of life? Are there some competencies which are emphasized for healthy youth development which could be usefully applied to remedy gaps in college and workplace readiness, and vice versa? This report seeks to widen the road to success for high school students. It also provides a sense of the degree to which research in each field indicates a need for each competency. The competencies needed are

organized into five domains of youth development: physical, psychological, social, cognitive, and spiritual. A chart of competencies is found on page 32.

Lippman, L., & Whitney, C. (2009). ***Research brief: A developmental perspective for high school practitioners on college and workplace readiness.*** **Washington, DC: Child Trends. Available at http://www.childtrends.org/Files//Child_Trends-2009_04_28_RB_HighSchoolPrac.pdf**

Excerpt: What skills and competencies do high school students need to master for future success? And what can high schools do to develop these skills? Research on skills has tended to focus either on college readiness or on workplace readiness, often in isolation and frequently without reference to what the broader field of youth development tells us every young person needs to make a successful transition to adulthood. Additionally, the emphasis has been on cognitive skills, and on how students, particularly those with challenges, leave high school intellectually unprepared for college or work. There has been less focus on the specific competencies, including noncognitive skills, which are necessary to foster that preparation. This brief draws on research across the three fields of college readiness, workplace readiness, and youth development, to identify strategies high schools can employ to foster both cognitive and non-cognitive competencies in their students, and highlights practices that are particularly effective for students facing specific challenges.

Lord, J.M. (2002). ***Student readiness for college: Connecting state policies.*** **Atlanta, GA: The Southern Regional Education Board. Available at http://publications.sreb.org/2002/02E06_Student_Readiness2002.pdf**

Abstract: The first step in developing an effective state-level policy framework is understanding the complexity of student readiness for college. This publication lays out a college-readiness policy framework for states, with particular attention to the needs of students and parents. It looks at many aspects of college readiness— curricula, quality teachers, assessment and accountability, educational support programs, parental involvement, and early information about college for young students.

Proctor, T.P., Wyatt, J., & Wiley, A. (2010). ***PSAT/NMSQT® Indicators of college readiness.*** **The College Board, New York. Available at http://professionals.collegeboard.com/profdownload/pdf/10b_2587_PSAT_IndicatorsOfReadiness_WEB_101018.pdf**

Executive Summary: This study extended the work of Wiley, Wyatt, and Camara (2010) by applying similar methodology to scores on the PSAT/NMSQT®. In that study, they used a conjunctive model that made use of high school GPA (HSGPA), SAT® scores, and a new metric they developed termed the Academic Readiness Indicator (ARI). To be considered college ready,

Wiley et al. (2010) reported that students would need a B+ HSGPA, a composite score of 1550 on the SAT and a 10 on their ARI metric. In the current study, only PSAT/NMSQT scores were available to develop benchmarks, but schools, districts and states administering the PSAT/NMSQT could use benchmarks on the PSAT/NMSQT to identify students who are on track to be college ready as well as those who are at risk not to be college ready or even those students who are prepared for a more rigorous curriculum. Many educators believe that students and schools need to understand if students are on track for college readiness earlier.

Prior research suggests that the academic preparation of many high school graduates leaves them unprepared for college-level course work. Less than 30 percent of surveyed college professors believe that public high schools adequately prepare students for the challenges of college (Achieve, 2005). This lack of preparation is further reflected in the high remediation rates of students entering higher education. The National Center for Education Statistics (NCES) estimated that 41 percent of students take at least one remedial course when entering college (2004). This number is even greater for underrepresented minority students, with 62 percent of African American and 63 percent of Hispanic students taking at least one remedial course (NCES, 2004). Results from this study indicate that, overall, 45 percent of 2008 10th-grade PSAT/NMSQT test-takers met the 11th-grade PSAT/NMSQT benchmarks, and 55 percent of 11th-grade PSAT/NMSQT test-takers went on to meet or exceed the SAT benchmark. This information can be useful to educators to intervene sooner and help students become college ready.

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

Abstract: 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 policymakers 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; noncognitive, 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.

Roderick, M., Nagaoka, J., Coca, V., Moeller, E., with Roddie, K., Gilliam, J., & Patton, D. (2008). ***From high school to the future: Potholes on the road to college*****. Chicago: Consortium on Chicago School Research. Available at http://ccsr.uchicago.edu/content/publications.php?pub_id=122**

Abstract: Since 2004, the Consortium has tracked the postsecondary experiences of successive cohorts of Chicago Public Schools graduates and examined the relationship among high school preparation, support, college choice, and postsecondary outcomes. The goal of this research is to help CPS, other urban districts and national policymakers understand what it takes to improve the college outcomes for urban and other at-risk students who now overwhelmingly aspire to college. CCSR's first report in this series, *From High School to the Future: A First Look at Chicago Public Schools Graduates' College Enrollment, College Preparation, and Graduation from Fouryear Colleges*, showed that increasing qualifications is the most important strategy to improving students' college participation, access to fouryear and more selective colleges, and ultimately college graduation rates. This second postsecondary report looks beyond qualifications to examine where students encounter potholes on the road to college. Ten case studies included each highlight a student who struggled at a different point in the postsecondary planning process.

Texas Higher Education Coordinating Board. (2008). ***Texas college readiness standards*****. Austin, TX: Author. Available at http://www.thecb.state.tx.us/collegereadiness/CRS.pdf**

Excerpt: The 79th Texas Legislature, Third Called Special Session, passed House Bill 1, the "Advancement of College Readiness in Curriculum." Section 28.008 of the Texas Education Code, seeks to increase the number of students who are college and career- ready when they graduate high school. The legislation required the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) to establish Vertical Teams (VTs) to develop College and Career Readiness Standards (CCRS) in the areas of English/language arts, mathematics, science, and social studies. These standards specify what students must know and be able to do to succeed in entry-level courses at postsecondary institutions in Texas.

Tierney, W.G., Bailey, T., Constantine, J., Finkelstein, N., & Hurd, N. F. (2009). ***Helping students navigate the path to college: What high schools can do: A practice guide*** **(NCEE #2009-4066). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Available at http://ies.ed.gov/ncee/wwc/publications/practiceguides/**

Abstract: Access to higher education remains a challenge for many students who face academic and informational barriers to college entry. This guide targets high schools and school districts, and focuses on effective practices that prepare students academically for college, assist them in completing the steps to college entry, and improve their likelihood of enrolling in college.

Wiley, A., Wyatt, J., & Camara, W.J. (2010). ***The Development of a Multidimensional College Readiness Index (CBRR 2010-3)*****. New York: The College Board. Available at http://professionals.collegeboard.com/profdownload/pdf/10b_2084_DevMultiDimenRR_WEB_100618.pdf**

This report will investigate a method of setting benchmarks for three metrics used to predict college success: SAT scores, high school grades, and academic rigor of high school coursework. The development of such benchmarks based on multiple measures could greatly aid in the transmittal of information regarding college readiness to students, parents, educators, and policymakers, as well as improve the accuracy of predictions concerning college readiness.

Organizations

Ramp Up for Readiness (University of Minnesota)

http://www.rampuptoreadiness.org/about/research

Excerpt: Ramp-Up to Readiness seeks to ensure that by the end of 12th grade students will have succeeded in all five Goals and become college-ready. Details about each Goal can be found on the individual Goal pages. Student outcomes for each Goal are listed in the Ramp-Up to Readiness Goals chart, as well as on the individual Goal pages. Each level of the Ramp-Up program includes Standards to ensure that progress in each Goal is made in each year of the Ramp-Up program. http://www.rampuptoreadiness.org/conduct/readiness-rubric

Annenberg Institute for School Reform at Brown University. College Readiness Indicator Systems. Available at http://www.annenberginstitute.org/wedo/CRIS.php.

Excerpt:

GOAL

Education leaders across the country are confounded by a growing phenomenon: Too many students are not college ready when they leave high school. Although indicators exist to identify students at risk of dropping out of high school, few indicators of students' college readiness are currently in place, and few districts have linked indicators to practices and policies in ways that would enable action to create meaningful, lasting change.

The Annenberg Institute for School Reform (AISR) at Brown University and the John W. Gardner Center for Youth and their Communities (JGC) at Stanford University have each

received three-year grants from the Bill and Melinda Gates Foundation to work together to select a network of sites and develop models for College Readiness Indicator Systems (CRIS).

WHAT WE DO
As part of this collaborative effort, AISR and JGC are developing, testing, and disseminating effective tools and resources that provide early diagnostic indications of what students need to become college ready. AISR and JGC are also helping to link indicators to action and track and test the efficacy of student support interventions. Both organizations are serving complementary, but distinct roles. JGC is developing and studying the implementation of a trilevel (individual, setting, and system) early warning system using a flexible, "design-build" approach with the partner districts. AISR is focusing on cross-site learning; brokering expertise and supports for partner districts; understanding issues related to district, municipal, state, and federal contexts; and process documentation.

The selected sites are receiving support to defray the costs related to network participation, and are also receiving resources to enhance or fill gaps in their CRIS development. Selected sites were identified from the outset as system leaders in supporting college readiness and/or in using data to create targeted interventions for students. Additionally, each participating site is having regular interaction with other sites working in this area with tailored support from the AISR and JGC staff.

TIMEFRAME
August 2010 to June 2013

Texas College and Career Readiness Standards
http://www.thecb.state.tx.us/reports/PDF/1513.PDF
http://www.thecb.state.tx.us/collegereadiness/CRS.pdf
Excerpt: The Texas College and Career Readiness Standards define what students should know and be able to accomplish in order to succeed in entry-level college courses or skilled workforce opportunities upon graduation from high school.

Texas Education Agency. Overview of The Academic Excellence Indicator System (AEIS).
http://ritter.tea.state.tx.us/perfreport/aeis/about.aeis.html
Excerpt: The Academic Excellence Indicator System (AEIS) pulls together a wide range of information on the performance of students in each school and district in Texas every year. This information is put into the annual AEIS reports, which are available each year in the fall. The performance indicators are:

- Results of Texas Assessment of Knowledge and Skills (TAKS*); by grade, by subject, and by all grades tested;
- Participation in the TAKS tests;
- Exit-level TAKS Cumulative Passing Rates;
- Progress of Prior Year TAKS Failers;
- Results of the Student Success Initiative;
- English Language Learners Progress Measure;
- Attendance Rates;
- Annual Dropout Rates (grades 7–8, grades 7–12, and grades 9–12);
- Completion Rates (4-year longitudinal);
- College Readiness Indicators;
    - Completion of Advanced / Dual Enrollment Courses;
    - Completion of the Recommended High School Program or Distinguished Achievement Program;
    - Participation and Performance on Advanced Placement (AP) and International Baccalaureate (IB) Examinations;
    - Texas Success Initiative (TSI) – Higher Education Readiness Component;
    - Participation and Performance on the College Admissions Tests (SAT and ACT), and
    - College-Ready Graduates;

Performance on each of these indicators is shown disaggregated by ethnicity, sex, special education, low-income status, limited English proficient status (since 2002–03), at-risk status (since 2003–04, district, region, and state), and, beginning in 2008–09, by bilingual/ESL (district, region, and state, in section three of reports). The reports also provide extensive information on school and district staff, finances, programs, and student demographics.

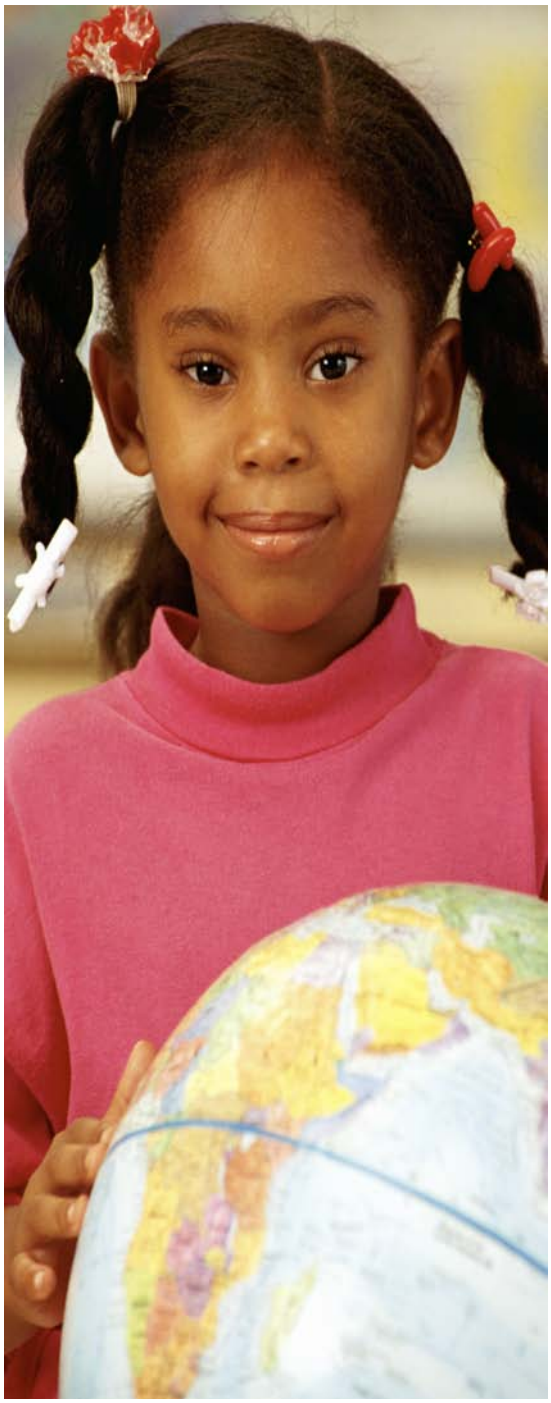
The accountability rating is visible as well on every AEIS report. However, please note: the AEIS report is not the "accountability report." For complete accountability information, please see the accountability data sheets available at http://www.tea.state.tx.us/perfreport/account/. The AEIS reports also include, when applicable, the list of Gold Performance Acknowledgements (GPAs) earned in the current year as well as a note describing Performance-Based Monitoring (PBM) Special Education Monitoring Results Status if pertinent to the specific district or campus.

Hawai‘i P-20 Partnerships for Education. ***Class of 2010 College and Career Readiness Indicators Report.***

Excerpt: The College and Career Readiness Indicators Report (CCRI) has been developed through Hawai‘i P-20 in partnership with the Hawai‘i Department of Education (DOE) and the

University of Hawai‘i (UH). This report presents information on how well Hawai‘i graduates are prepared to meet the DOE's Vision of a High School Graduate.
http://www.p20hawaii.org/node/122

REGIONAL EDUCATIONAL LAB August 2011, EBE # 833B



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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