



Readiness Indicators Research Collection

Metric	Source	Highlight
OVERALL Research META Analysis	<p>1. AIR CCRS Source Article: Predictors of Postsecondary Success http://www.ccrscenter.org/sites/default/files/CCRS%20Center_Predictors%20of%20Postsecondary%20Success_final_0.pdf</p> <p>2. Wiley, A., Wyatt, J., & Camara, W. J. (2010). The Development of a Multidimensional college readiness index. New York: The College Board Retrieved from http://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-2010-3-development-multidimensional-college-readiness-index.pdf</p>	<p>1. Provides a meta analysis of research with specific high school indicators of college readiness. High School Correlates of Secondary and Postsecondary Success page 9.</p> <p>2. A measure based upon the three indicators used here is likely to present a more comprehensive picture of college readiness than a benchmark based on test scores alone: SAT scores, high school GPA scores (HSGPA) and an academic rigor score combine to make the multidimensional index. The Academic Rigor Index (ARI) assigned the highest ratings equally for honors, dual enrollment and Advanced Placement® (AP).</p>
GPA	<p>1. Pathways to the Middle Class: Balancing Personal and Public Responsibilities Isabel V. Sawhill, Scott Winship, and Kerry Searle Grannis September 20, 2012 http://www.brookings.edu/~media/research/files/papers/2012/9/20-pathways-middle-class-sawhill-winship/0920-pathways-middle-class-sawhill-winship.pdf</p> <p>2. Geiser, Saul; Santelices, Maria V. (2007). Validity Of High-School Grades in Predicting Student Success Beyond the Freshman Year http://files.eric.ed.gov/fulltext/ED502858.pdf</p>	<p>1 Students with a 2.5 GPA graduating high school (not convicted of a crime or a parent) have a .71 likelihood of reaching the American middle class.</p> <p>2 HSGPA is consistently the strongest predictor of four-year college outcomes for all academic disciplines, campuses and freshman cohorts in the UC sample; surprisingly, the predictive weight associated with HSGPA increases after the freshman year, accounting for a greater proportion of variance in cumulative fourth-year than first-year college grades; and as an admissions criterion, HSGPA has less adverse impact than standardized tests on disadvantaged and underrepresented minority students.</p>
AP Course C+	<p>Dougherty, Chrys; Mellor, Lynn; Jian, Shuling. (2006). The Relationship between Advanced Placement and College Graduation. 2005 AP Study Series, Report I: National Center for Educational Accountability. http://files.eric.ed.gov/fulltext/ED519365.pdf</p>	<p>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.</p>

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AP Exam 3+	<p>1. Nagaoka, J., Roderick, M., & Coca, V. (2009). Barriers to college attainment: Lessons from Chicago. Washington, DC: Center for American Progress.</p> <p>http://www.studentclearinghouse.org/high_schools/files/STHS_ChicagoSchools.pdf</p> <p>2. Wiley, A., Wyatt, J., & Camara, W. J. (2010). The development of a multidimensional college readiness index. New York: The College Board</p> <p>Retrieved from http://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-2010-3-development-multidimensional-college-readiness-index.pdf</p> <p>Cited by American Institutes for Research</p>	<p>1. To better understand how high school performance relates to college access, developed student profile based on a combination of GPA, ACT Score, and two or more AP Courses.</p> <p>2. Participation in Advanced Placement provided as an indicator of Academic Rigor (ARI) and component of college readiness.</p>
Dual Credit English/Math	<p>Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states. St. Paul, MN: National Research Center for Career and Technical Education, University of Minnesota</p> <p>http://www.nrccte.org/resources/publications/postsecondary-achievement-participants-dual-enrollment-analysis-student</p> <p>Report overview at a glance: http://www.nrccte.org/sites/default/files/publications-snapshots/postsec_dual_enrollment.pdf</p>	<p>FL Data: Dual enrollment students were statistically significantly more likely to -persist in college to a second semester -earn higher postsecondary GPA one year & two years after high school graduation</p> <ul style="list-style-type: none"> • Remain enrolled two years after graduating from high school • Effect of dual enrollment participation remained the same, regardless of number of dual enrollment courses (1-5). Findings in NY data set suggested an intensity effect at 2 or more courses. • Male and low-income students benefited more from dual enrollment participation than their peers
Developmental Education	<p>1. Hughes, Edgecombe, and Snell (2011). Developmental Education: Why and How We Must Change It</p> <p>http://ccrc.tc.columbia.edu/media/k2/attachments/developmental-education-why-reform.pdf</p> <p>2. Bailey and Cho. (2010). Developmental Education in Community Colleges Prepared for: The White House Summit on Community College</p> <p>http://ccrc.tc.columbia.edu/media/k2/attachments/developmental-education-community-colleges.pdf</p> <p>3. (2013) Florida Senate Bill 1720. Jobs for the Future. http://www.jff.org/initiatives/postsecondary-state-policy/developmental-education-redesign-florida</p>	<p>1. 60% of community college students are referred to Developmental Education. Nice pictograph on slide 4 which reflects the percent of students at each developmental education level and odds of completing college level course..</p> <p>Locally developed data suggests only modest success in continued course sequence of college level English and Math.</p> <p>2. Less than 25% of CC students in developmental ed complete a degree or certificate within 8 years compared to 40% of non-Dev Ed students.</p> <p>3. In 2013, the Florida Legislature passed Senate Bill (SB) 1720, which called for all developmental education offered in the state to be accelerated and graduates of Florida public high schools with a standard diploma exempt from assessment and placement into developmental education.</p> <p>Early results from Florida show no change in student GPAs since the law's implementation.</p>

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<p>Algebra II C+</p>	<ol style="list-style-type: none"> <li data-bbox="414 191 930 430"> <p>Musen. (2010). Pre-algebra and Algebra Enrollment and Achievement. Beyond Test Scores: Leading Indicators for Education. Annenberg Institute for School Reform at Brown University.</p> <p>http://annenberginstitute.org/pdf/LeadingIndicator_Math.pdf</p> <li data-bbox="414 447 930 686"> <p>Carnevale, Desrochers. Connecting Education Standards and Employment: Course-taking Patterns of Young Worker. Educational Testing Service. The Diploma Project (2005).</p> <p>http://cpe.ky.gov/NR/rdonlyres/0EF43EF9-9179-481A-9ADB-8E0D67CA5C01/0/ADPWorkplaceStudy_20050415.pdf</p> <li data-bbox="414 703 930 871"> <p>Muller, Beatty. (2008). The Building Blocks of Success Higher-Level Math for All Students. Achieve Policy Brief.</p> <p>http://www.achieve.org/files/BuildingBlocksofSuccess.pdf</p> 	<ol style="list-style-type: none"> <li data-bbox="963 191 1468 380"> <p>References to other’s research. Success in Algebra II in high school is linked to both college enrollment and bachelor’s degree attainment. Courses students take in high school are more predictive of [college] success than family income and race.</p> <li data-bbox="963 396 1468 489"> <p>Algebra II is the benchmark course for students aspiring to highly paid professional jobs or well-paid, white-collar jobs.</p> <li data-bbox="963 506 1468 858"> <p>Algebra is the “gateway” course not just because it as a prerequisite for many high school and postsecondary math, science, engineering, and technology courses, but because it is an intellectual gateway to abstract reasoning. Students who study math at least through Algebra II in high school are more than twice as likely as those who do not to earn a four-year degree, and the level of math a student reaches is the most accurate predictor of whether that student will earn a Bachelor’s degree.</p> <p>* Recommendations are made in research for an additional math course in sequence.</p>
<p>International Baccalaureate Exam (4+)</p>	<ol style="list-style-type: none"> <li data-bbox="414 1012 930 1308"> <p>International Baccalaureate Diploma Programme: Examining College Readiness (2014); Prepared by the Educational Policy Improvement Center on behalf of the International Baccalaureate Organization</p> <p>http://www.ibo.org/contentassets/d74675437b4f4ab38312702599a432f1/ib_diploma_programme_examining_college_readiness_2014_0715_000.pdf</p> <li data-bbox="414 1325 930 1690"> <p>High school rigor and good advice: Setting up students to succeed (At a glance) (2012); Summary is based on a study by Kasey Klepfer, an Archer Graduate Fellow at the University of Texas at Austin, with the guidance of Jim Hull, senior policy analyst for the Center for Public Education, an initiative of the National School Boards Association.</p> <p>http://www.centerforpubliceducation.org/Main-Menu/Staffingstudents/High-school-rigor-and-good-advice-Setting-up-students-to-succeed</p> 	<ol style="list-style-type: none"> <li data-bbox="963 1012 1468 1291"> <p>A study by the Educational Policy Improvement Center (EPIC) published in May 2014 used student data from the University of Oregon to determine that students who participated in the International Baccalaureate Diploma program in high school were more likely than those who did not to earn post-secondary degrees, persist over two years and earn higher GPAs in their first two years of college.</p> <li data-bbox="963 1308 1468 1526"> <p>Study finds that low achieving students and students from a low socioeconomic background who took an AP or IB course were 17 percent more likely to persist in four year colleges and 30 percent more likely to persist in two year colleges. The more courses they took, the higher their persistence levels.</p>
<p>College Readiness Placement Assessment</p>	<p>Locally identified placement assessment such as Compass, AccuPlacer, ALEKS.</p>	<p>Compass Assessment will no longer be used as of January, 2016.</p>

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SAT College Readiness Benchmarks	<p>Wyatt, Kobrin, Wiley, Camara, & Proestler. (Research Report 2011-5). Development of a College Readiness Benchmark and its Relationship to Secondary and Postsecondary School Performance</p> <p>http://research.collegeboard.org/sites/default/files/publications/2012/7/researchreport-2011-5-sat-college-readiness-benchmark-secondary-performance.pdf</p>	<p>College Board report establishing benchmark scores associated with specific grades in corresponding college courses.</p>
ACT College Readiness Benchmarks	<p>ACT. (2012). The condition of college & career readiness. Iowa City, IA: Author.</p> <p>2015 version</p> <p>http://www.act.org/research/policymakers/cccr15/pdf/CCCR15-NationalReadinessRpt.pdf</p>	<p>ACT report establishing benchmark scores associated with specific grades in corresponding college courses.</p>
90% Attendance	<p>Allensworth, E. M., & Easton, J. Q. (2007). What matters for staying on track and graduating in Chicago Public High Schools: A close look at course grades, failures, and attendance in the freshmen year. Chicago: Consortium on Chicago School Research.</p> <p>Retrieved from http://ccsr.uchicago.edu/sites/default/files/publications/07%20What%20Matters%20Final.pdf</p>	<ul style="list-style-type: none"> • Only 11 percent of students entering with low achievement miss less than one week • Just one week of absence per semester indicates problems with students' grades • Course attendance is eight times more predictive of course failure in the freshman year than eighth-grade test scores • Freshman absences can be used to predict 63 percent of the variation in course failures among freshmen • Course attendance is also highly predictive of getting higher grades, not just avoiding failures. As with course failures, attendance is the strongest predictor of overall grades and of grades other than failures. • More than half of the students who miss less than one week of school per semester have a GPA of 3.0 (B average) or higher at the end of their first year, three-fourths have at least a 2.5 GPA, and 90 percent have at least a 2.0 GPA.
Community Service	<ol style="list-style-type: none"> 1. Alberto Davila and Marie T. Mora (2007). An Assessment of Civic Engagement and Educational Attainment http://files.eric.ed.gov/fulltext/ED497603.pdf 2. OnlinCollege.org (2012). 12 Reasons Community Service Should Be Required in Schools. http://www.onlinecollege.org/2012/06/27/12-reasons-community-service-should-be-required-schools/ 	<ol style="list-style-type: none"> 1. Civically-engaged teenagers make greater scholastic progress during high school and subsequently acquire higher levels of education than their otherwise similar peers. Community service to fulfill class-requirements significantly enhanced the average odds of college graduation by 22 percentage points. 2. Widely cited pamphlet on the benefits of community service.

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<p>Identifying a Career Cluster of Interest</p>	<p>1. Harvard Study: William C. Symonds, Robert B. Schwartz and Ronald Ferguson (February 2011). Pathways to Prosperity</p> <p>http://dash.harvard.edu/bitstream/handle/1/4740480/Pathways_to_Prosperty_Feb2011-1.pdf?sequence=1</p>	<ul style="list-style-type: none"> • The forgotten half persists. In 1988, the William T. Grant Foundation published a report that called the then 20 million non-college bound youth “the forgotten half,” and warned: “they are in danger of being caught in a massive bind that can deny them full participation in our society.” • A narrowly defined “college for all” goal – one that does not include a much stronger focus on career-oriented programs that lead to occupational credentials—seems doomed to fail. “middle-skill” occupations such as electrician, and construction manager, dental hygienist, paralegal and police officer pay a significant premium over many jobs open to those with just a high school degree. • Just 9 percent of low-income black teens are employed, as are just 15 percent of low-income Hispanic teens. In contrast, the employment rate among upper middle-income white teens (whose families earn \$75,000 to \$100,000 a year) is 41 percent—four times higher than among low-income black teens. • 70 percent of high school graduates now go to college within two years of graduating. But only about 4 in 10 Americans have obtained either an associate’s or bachelor’s degree by their mid-twenties.
<p>Workplace Learning Experience (D214 Approach is Unique)</p>	<p>1. Brad Stam (2011). The Power of real-world Application: Industry- themed pathways that connect learning with students’ interests and career aspirations can transport the high school experience.</p> <p>http://files.eric.ed.gov/fulltext/EJ965882.pdf</p> <p>http://connectedcalifornia.org/home</p> <p>http://www.connectedcalifornia.org/direct/files/resources_year5linkedlearning_evaluationexecsummdec2014.pdf</p> <p>2. Caralee J. Adams (January 2013). Education Week;1/30/2013, Vol. 32 Issue 19, p8. Internships Help Students Prepare for Workplace</p> <p>http://www.edweek.org/ew/articles/2013/01/30/19internship_ep.h32.html</p> <p>3. Michael Bangser, MDRC (August 2008). Preparing High School Students for Successful Transitions to Postsecondary Education and Employment</p> <p>http://betterhighschools.org/docs/PreparingHSSStudentsforTransition_073108.pdf</p>	<p>1. Overview article on the 800 school pathway sites in California. Suggests learning linked to pathways makes school “ real and exciting” to students answering the question, “Why do we need to learn this?” Academic course content is coordinated with and reinforces technical content and vice versa. Linked report indicates evidence of improved high school outcomes.</p> <p>2. Students need to develop a work ethic, communication skills, and the ability to work on a team. The traditional high school curriculum is narrow, which particularly hurts low-achieving students who may not be pursuing a four-year degree but need to develop career skills. It was rare to get a hands-on opportunity in medicine as a high school student, some who volunteered got stuck shelving books.</p> <p>3. Students’ high school experiences often do not prepare them adequately for postsecondary education and the world of work. Integrate strong academic content into career-focused classes. Collaborate with postsecondary institutions, economic development agencies, and employers to help create smoother transitions to college and the workforce.</p>

Metric	Source	Highlight
Industry Credential	<p data-bbox="414 191 646 224">What is a Credential?</p> <p data-bbox="414 239 915 331">https://www.acteonline.org/uploadedFiles/Assets_and_Documents/Global/files/Publications/What_is_a_Credential-UpdatedAug2015.pdf</p>	<p data-bbox="963 191 1435 224">Defines types of credentials that can be earned.</p>
Co-Curricular Participation	<ol data-bbox="414 407 919 768" style="list-style-type: none"> <li data-bbox="414 407 919 575">1. National Center for Education Statistics (1995). Extracurricular Participation and Student Engagement. Washington, DC: U.S. Department of Education, Institute of Education Sciences http://nces.ed.gov/pubs95/web/95741.asp <li data-bbox="414 596 919 768">2. Johnston.(2008). Extracurricular Activities and Student Achievement: Everyone Gains, Education Partnerships. http://oregongearup.org/files/research-briefs/extracurricularactivities.pdf 	<p data-bbox="963 407 1425 464">Data for both articles from a study done by the National Center for Educational Statistics.</p> <ol data-bbox="963 485 1468 848" style="list-style-type: none"> <li data-bbox="963 485 1468 674">1. Participants in extracurricular activities were more likely than nonparticipants to aspire to higher education: two-thirds of participants expected to complete at least a bachelor's degree while only about half of nonparticipants expected to do so. <li data-bbox="963 695 1468 848">2. Extracurricular activities are one of the best investments that a school can make to help promote achievement, student engagement, and the attitudes and habits that lead to college aspirations and ultimate success.

