
Thank you for your request to our REL Reference Desk regarding indicators of high school preparation and support of college readiness and application process. Ask A REL is a collaborative reference desk service provided by the ten regional educational laboratories (REL) that, by design, functions much in the same way as a technical reference library. It provides references, referrals, and brief responses in the form of citations on research based education questions.

The information below represents the most rigorous research available. Researchers consider the type of methodology and give priority to research reports that employ well described and thorough methods. The resources were also selected based on the date of the publication with a preference for research from the last ten years. Additional criteria for inclusion include the source and funder of the resource.

Question: *What indicators should we be looking at to insure we are providing the best service and support for our students seeking college entrance?*

Search Process

Key words and search strings used in the search: *support AND high school AND college application; indicators AND high schools AND college entrance OR readiness*

Search databases and websites:

1. ERIC: <http://www.eric.ed.gov/>
2. JSTOR: <http://www.jstor.org/action/showAdvancedSearch>
3. Google Scholar: www.google.com/scholar
4. Institute of Education Sciences (IES) Resources: <http://ies.ed.gov>
5. What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>

Results: There is a significant amount of ongoing work in this area. Included here is just a small sample. We recommend you contact Dr. Joseph Harris at the College & Career Readiness & Success Center for more extensive information and assistance.

Sample Citations Retrieved: *(NOTE: Abstracts and executive summaries are copied directly from the reports when possible to ensure accuracy):*

Bloom, Janice. (2008). The Pedagogy of College Access Programs: A Critical Analysis. Critical Essay. ASHE/Lumina Fellows Series. Issue 5. *Association for the Study of Higher Education*. Retrieved from: <http://files.eric.ed.gov/fulltext/ED530572.pdf>

Abstract/Summary: This critical essay is based on ethnographic research that followed thirteen students (from different social classes and racial background) through the college application

process during their senior year of high school (Bloom, 2007). The study's purpose was to understand the accumulation and use of social and cultural capital by critically analyzing the resources first-generation students and families appear to lack. Moreover, the study was concerned with identifying important social and cultural resources that middle- and upper-middle-class students and families bring to the college transition. This essay asks: What are the processes through which students develop concrete college aspirations and a sense of efficacy in pursuing those aspirations? How is an understanding of the landscape of higher education (the differences between public and private, small and large, liberal arts or vocational colleges, etc.) built over time, and what exactly leads students to consider--or not consider--more selective institutions and schools across a greater geographic range? What kinds of social networks are needed to successfully navigate the application process? In each of these areas, the study attempts to move beyond noting differences across race and class to exploring the processes through which these differences are created. Three specific areas in relation to access to dominant social and cultural capital are addressed: (1) What Appadurai (2004) has termed the "capacity to aspire" by students from differing backgrounds, as it relates to higher education; (2) Students' knowledge of the landscape of higher education and their choice process as they consider a range of institutions; and (3) The ways that students and families navigate the actual college application process. Finally, the essay addresses the pedagogy behind many existing college access programs. Specifically, it assesses programs' knowledge about crucial but subtle differences in resources across race and class, including ability to provide true access to the kinds of institutional supports that middle- and upper-income students have. Moreover, the ways that college access programs do (or do not) position first-generation college-going students as actors and owners of their own transition process are addressed. In doing so, this essay hopes to raise important--but currently unasked--questions about the pedagogy of college access programs, and illuminate why some current programs may not be successfully ameliorating existing inequities. (Contains 3 footnotes.) [This essay was written with the assistance of Michelle Fine, Stephen Porter, Laura Rendon, and Lori Chajet.]

Davidson, Jeffrey Cody. (2014). Leading Indicators: Increasing Statewide Bachelor's Degree Completion Rates at 4-Year Public Institutions. *Higher Education Policy*, 27(1), 85-109.
doi: 10.1057/hep.2013.17

Abstract/Summary: For the United States to maintain national and global economic stability, colleges must graduate more students. Four-year completion rates have declined and less than one-third of full-time, degree-seeking students graduate in 4 years. Some researchers and policymakers have suggested "leading indicators" to track postsecondary educational

achievement. This study examined the relationship between pre-college factors (e.g., socio-economic status, college readiness, race/ethnicity, etc.), leading indicators (e.g., earning 30 credits at the end of year one, continuous enrolment, summer course credit, etc.) and degree completion at Kentucky's 4-year public institutions. The results showed that the effects of some leading indicators varied based on pre-college factors. Overall, factors related to credit accumulation had the most impact on the likelihood of increasing graduation rates. Policy and practice should consider the impact of pre-college factors on the effectiveness of leading indicators to most efficiently increase degree completion rates.

Dounay, Jennifer. (2006). Embedding College Readiness Indicators in High School Curriculum and Assessments. Education Commission of the States. Retrieved from:
<http://www.ecs.org/clearinghouse/68/55/6855.pdf>

Abstract/Summary: This Policy Brief describes the methods a growing number of states are using to place college readiness indicators in high school coursework and assessments. To help ensure that students are prepared for college-level work, a number of states embed college readiness indicators in curriculum and assessments. This policy brief presents how several states have implemented this practice--often through legislation--at the local, state, and district levels. It is concluded that, while there is no "right path" for states to follow, a variety of options in curriculum and assessment alignment have successfully identified students needing remediation or additional coursework before college, and inspired students who did not consider themselves "college material" to go on to complete postsecondary education. (Contains 15 endnotes.)

Edmunds, Julie A. (2012). Early Colleges: A New Model of Schooling Focusing on College Readiness. *New Directions for Higher Education*, 158, 81-89. doi: 10.1002/he.20017

Abstract/Summary: Postsecondary educators have expressed concerns for many years about how prepared high school students are for college. As a result, states and organizations have launched a variety of initiatives designed to increase high school students' readiness for college, including increased access to college-level courses. One of the most promising initiatives has been the early college high school model--an innovative high school-college blend that is purposefully designed to ensure that students are ready for college. Early colleges, as they are often called, expand the model of dual enrollment by incorporating dual enrollment courses into the whole structure of the school. This article presents an overview of early colleges and their results, focusing particularly on how early colleges support the goal of college readiness. The first section briefly explores the concept of college readiness. The second section describes the

early college high school model, and the final section highlights the impact of the model on different indicators of college readiness. (Contains 1 figure.)

Fletcher, Jason M. (2009). Is Identification with School the Key Component in the "Black Box" of Education Outcomes? Evidence from a Randomized Experiment. *Economics of Education Review*, 28(6), 662-671. doi: 10.1016/j.econedurev.2009.01.007

Abstract/Summary: In this paper, we follow up the important class size reduction randomized experiment in Tennessee in the mid 1980s (Project STAR) to attempt to further understand the long-lasting influences of early education interventions. While STAR led to large test score benefits during the intervention, these benefits quickly faded at its conclusion. However, research has recently shown that the STAR experiment led to long term benefits, including increases in college entrance exams participation (ACT/SAT), especially for minority students. We collect new follow up data on high school participation in extracurricular activities to examine whether (1) STAR increased participation in high school activities and (2) whether this increase in participation in high school is the explanation behind the long term benefits of the intervention. We find suggestive evidence that STAR did indeed increase some aspects of high school participation, including scholastic honors and participation in sports, especially for minority students. In contrast, we find little evidence that this increase in participation is the mechanism that has conferred higher rates of college-going to the STAR students. (Contains 9 tables.)

Honken, Nora B., & Ralston, Patricia A. S. (2013). High-Achieving High School Students and Not so High-Achieving College Students: A Look at Lack of Self-Control, Academic Ability, and Performance in College. *Journal of Advanced Academics*, 24(2), 108-124. doi: 10.1177/1932202X13482466

Abstract/Summary: This study investigated the relationship among lack of self-control, academic ability, and academic performance for a cohort of freshman engineering students who were, with a few exceptions, extremely high achievers in high school. Structural equation modeling analysis led to the conclusion that lack of self-control in high school, as measured by the frequency of illegal and irresponsible behaviors, had an inverse relationship with first semester grade point average (GPA), whereas academic ability, as measured by ACT scores, had a positive relationship with college GPA. The correlation between the residual error for one of the indicators of self-control, homework behaviors in high school, and the residual error for first semester GPA was also significant. Research on the relationships between self-control,

homework behaviors in high school, and performance in college should continue; meanwhile, parents and teachers would be advised to emphasize the importance of developing self-control and positive homework behaviors in academically advanced high school students. (Contains 7 tables and 2 figures.)

Hyslop, Anne. (2011). Data that Matters: Giving High Schools Useful Feedback on Grads' Outcomes. Charts You Can Trust. Education Sector. Retrieved from:
<http://www.educationsector.org/publications/data-matters-giving-high-schools-useful-feedback-grads-outcomes>

Abstract/Summary: Today, there is a growing agreement that students should leave high school "college- and career-ready." But what does that mean? And how can high schools tell if they are meeting the goal? This analysis identifies four characteristics of the most successful college readiness reports. (Contains 3 charts, 1 figure and 25 notes.)

Riegle-Crumb, Catherine, King, Barbara, Grodsky, Eric, & Muller, Chandra. (2012). The More Things Change, the More They Stay the Same? Prior Achievement Fails to Explain Gender Inequality in Entry into Stem College Majors over Time. *American Educational Research Journal*, 49(6), 1048-1073. doi: 10.3102/0002831211435229

Abstract/Summary: This article investigates the empirical basis for often-repeated arguments that gender differences in entrance into science, technology, engineering, and mathematics (STEM) majors are largely explained by disparities in prior achievement. Analyses use data from three national cohorts of college matriculates across three decades to consider differences across several indicators of high school math and science achievement at the mean and also at the top of the test distribution. Analyses also examine the different comparative advantages men and women enjoy in math/science versus English/reading. Regardless of how prior achievement is measured, very little of the strong and persistent gender gap in physical science and engineering majors over time is explained. Findings highlight the limitations of theories focusing on gender differences in skills and suggest directions for future research. (Contains 2 figures, 2 tables and 13 notes.)

Roderick, Melissa, Nagaoka, Jenny, Coca, Vanessa, & Moeller, Eliza. (2008). From High School to the Future: Potholes on the Road to College. Consortium on Chicago School Research. Retrieved from:
http://ccsr.uchicago.edu/sites/default/files/publications/CCSR_Potholes_Report.pdf

Abstract/Summary: Since 2004, the Consortium on Chicago School Research (CCSR) has tracked the postsecondary experiences of successive cohorts of graduating Chicago Public Schools (CPS) students and examined the relationship among high school preparation, support, college choice, and postsecondary outcomes. The goal of this research is to help CPS understand the determinants of students' postsecondary success and to identify key levers for improvement. The first report in this series, "From High School to the Future: A First Look at Chicago Public School Graduates' College Enrollment, College Preparation, and Graduation from Four-Year Colleges," [see ED499368] provided a baseline of where CPS stood as a school system. The first report suggested that "high schools must pay attention to guidance and support if students are to translate qualifications into college enrollment," but that report did not provide evidence to help educators think about how to do this. The purpose of this second report is to begin to fill this gap by looking closely at the ways in which students who aspire to attend four-year colleges participate in the college search and application process. It examines whether CPS students who aspire to four-year colleges are effectively participating in the college search and application process and where they encounter potholes on the road to college. Drawing on prior research, it examines both how students manage the college application process and what types of colleges students apply to and ultimately enroll in. First, are CPS students who aspire to attend a four-year college taking the steps they need to enroll in a four-year college? Second, do CPS students effectively participate in college search and get the support they need to make informed choices about what colleges they could apply to and what colleges may best fit their needs? A critical goal of this report is to understand where CPS students encounter difficulty and success as they navigate the college search and application process, as well as the extent to which high school educators can create environments that support students in thoroughly engaging in this process. The following are appended: (1) Description of Selectivity Ratings Used in This Report; (2) Data Used in This Report; (3) Adjusting for Missing NSC [National Student Clearinghouse] Data; (4) Variables Used in This Analysis; (5) Models Used in This Report; and (6) Summary of College Planning Websites. (Contains 2 tables, 35 figures, and 78 endnotes.) [This report was written with Karen Roddie, Jamiliyah Gilliam, and Desmond Patton. For "From High School to the Future: Potholes on the Road to College. Case Studies," see ED500518. For "From High School to the Future: Potholes on the Road to College. Executive Summary," see ED500677.]

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. Retrieved from: <http://ies.ed.gov/ncee/wvc/publications/practiceguides/>.

Abstract/Summary: This guide is intended to help schools and districts develop practices to increase access to higher education. It can be useful for individuals who work in schools and districts in planning and executing strategies to improve preparation for, and access to, higher education.

Referrals

Organizations:

- University of Chicago Consortium on Chicago School Research: <http://ccsr.uchicago.edu>
- Education Commission of the States: <http://ecs.org>
- Education Sector: <http://www.educationsector.org>

Federally Funded Resources:

- Institute of Education Sciences (IES), public search engine available at: <http://ies.ed.gov/pubsearch/>
- What Works Clearinghouse: <http://ies.ed.gov/ncee/wwc/>
- College & Career Readiness & Success Center: <http://www.ccrscenter.org>

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