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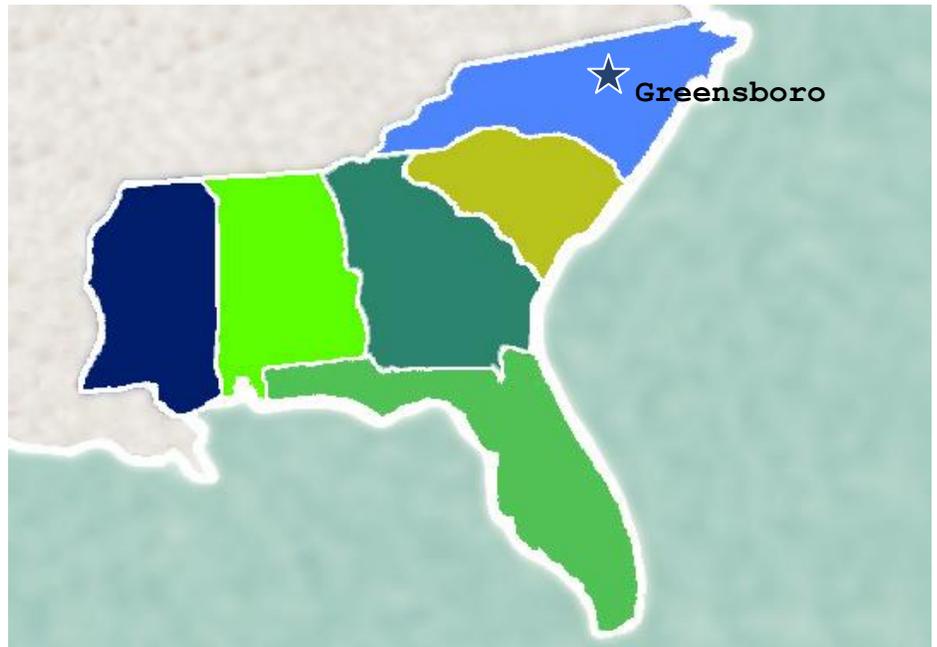
EVIDENCE BASED EDUCATION REQUEST DESK

OUR GOAL

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

★ **Greensboro**

REQUEST:

- Early warning indicator systems research for secondary schools

RESPONSE

Methodology

REL-SE staff conducted searches of the Internet and UNCG online education databases (EconLit, Google Scholar, Wilson Web, etc.) for research and studies regarding the state of early warning indicator systems research for secondary schools. REL-SE staff also consulted relevant nonprofit organizations (AIR, Mathematica, MDRC, RAND, Urban Institute, etc.), state department of education web sites (for AL, FL, GA, MS, NC and SC) as well as U.S. government websites (U.S. ED, GAO, IES, WWC, etc.) for information. The Additional Resources section provides web sites of interest with specific information on dropouts/early warning indicator systems as well as recent conferences discussing early warning indicator systems. An annotated bibliography of the research follows.

Additional Resources

1. **American Youth Policy Forum:** Improving the Transition from Middle Grades to High School: The Role of Early Warning Indicators Lunch Forum, Washington, DC, January 25, 2008
   a. Presenters included: Elaine Allensworth (Consortium on Chicago School Research, University of Chicago), Robert Balfanz (Johns Hopkins University), Craig Jerald (Breaking the Curve Consulting)
   b. Three sessions included:
      i. Balfanz, "Keeping Early Secondary Grade Students on the Graduation Path: Findings and Policy Implications"
      ii. Allensworth, "What Matters for Staying On-Track and Graduating in Chicago Public Schools"
      iii. Jerald, "Stacking the Deck: Using Early Warning Data to Improve High School Outcomes"
   c. Session summaries and presenters' PowerPoint slides are available at: http://www.aypf.org/forumbriefs/2008/fb012508.htm
2. **Center for Public Education:** Their section on dropouts provides three nice overviews:
   a. *Key Lessons About Preventing Dropouts:* An at-a-glance guide to research on dropout identification, intervention, prevention, and recovery.
   b. *Research Review: Keeping Kids in School:* What research has to tell us about preventing dropouts.
   c. *Dropouts: Myths v. Realities:* Many widespread ideas about dropouts miss the mark.
   d. All three overviews can be found at: http://www.centerforpubliceducation.org/site/c.kjJXJ5MPIwE/b.2623519/k.DB01/Dropouts.htm
3. **Everyone Graduates Center:** Early warning indicator systems overview: http://www.every1graduates.org/ToolsAndModels/EarlyWarningSystems.html
4. **National High School Center/BetterHighSchools.org:** Dropout and early warning materials: http://www.betterhighschools.com/topics/DropoutWarningSigns.asp

Bibliography

Achieve and Jobs for the Future (2007 July). *Moving North Carolina forward: High standards and high graduation rates: A framework for next-generation assessment and accountability indicators*. Washington, DC: Achieve, Inc., and Jobs for the Future.

Abstract: After conducting a thorough policy analysis, Achieve and Jobs for the Future suggested in this report to North Carolina ways it can create a more coherent, intention-

al, and aligned assessment and accountability system to improve both achievement and graduation rates for struggling and out-of-school students. The report includes a preliminary framework for next-generation high school accountability indicators that recognize and reward schools that help all students graduate on time with a college and career-ready diploma. The recommendations were presented to an independent Blue Ribbon Commission on Testing and Accountability in North Carolina. This report was part of Moving Forward: High Standards and High Graduation Rates, a joint project of Achieve, Inc., and Jobs for the Future and funded by Carnegie Corporation of New York. [*PDF included*]

Link: http://www.achieve.org/files/MovingNCForward.pdf

Allensworth, E. M., & Easton, J. Q. (2005 June). *The on-track indicator as a predictor of high school graduation.* **Chicago: Consortium on Chicago School Research.**

Abstract: This indicator identifies students as on-track if they earn at least five full-year course credits and no more than one semester "F" in a core course in their first year of high school. On-track students are more than three and one-half times more likely to graduate from high school in four years than off-track students. The indicator is a more accurate predictor of graduation than students' previous achievement test scores or their background characteristics. Perhaps the most important finding from this report is that failures during the first year of high school make a student much less likely to graduate. Based on their findings, the authors believe that parents and teachers should carefully monitor students' grades, especially in the first semester of freshman year, when there are still many opportunities to improve grades. Helping students make a successful transition to high school during the first semester could make students more likely to graduate. This report also finds that on-track students are not necessarily the students with the highest achievement test scores. Many students with strong achievement fail to graduate, and many students who have demonstrated weaker achievement succeed in graduating. Finally, this report concludes that the particular school a student attends plays a large role in whether the student is on-track. While we expect schools to have students with differing levels of preparation for high school, differences in the number of students on-track at each school remained even when the authors controlled for students' eighth-grade test scores and socioeconomic status. This suggests that school climate and structure play a significant role in whether students succeed in high school. Schools can use the on-track indicator, which makes use of readily available data on course credits and failures, to understand what aspects of the school may be leading students to drop out. [*PDF included*]

Link: http://ccsr.uchicago.edu/content/publications.php?pub_id=10

Allensworth, E. M., & Easton, J. Q. (2007 July). *What matters for staying on-track and graduating in Chicago Public Schools*. Chicago: Consortium on Chicago School Research.

Abstract: Almost half of all Chicago Public School students fail to graduate, and in some CPS high schools more students drop out than graduate. It is a problem that can sometimes feel overwhelming to address because the causes of dropout are myriad and complex. What is often lost in discussions about dropping out is the one factor that is most directly related to graduation—students' performance in their courses. In this research report, CCSR authors Elaine Allensworth and John Q. Easton look into the elements of course performance that predict whether students will graduate and suggest what schools and families can do to keep more teens in school. Building on earlier CCSR research of "on-track indicators" that demonstrated a connection between failing freshman classes and dropping out, the authors found that a number of freshman-year factors can be used to predict high school graduation. Grades are as predictive as on-track indicators; almost all students with a "B" average or better at the end of their freshman year graduate compared to only a quarter of those with a "D" average. The research also revealed how critical attendance is for freshman success. Conventional wisdom holds that eighth-grade test scores are good predictors of students' likelihood to do well in high school courses. However, course attendance is eight times more predictive of course failure in the freshman year than test scores. Just one week of absence is associated with a much greater likelihood of failure, regardless of incoming achievement. The authors also examine how school practices affect students' grades, failure rates and attendance. Students' grades and attendance are particularly better than expected in schools characterized by two features—supportive relationships between teachers and students and a perception among students that the work they are doing in high school is preparing them for the future. [*PDF included*]

Video presentation also available at the link provided below. Author Elaine Allensworth outlined the key findings during a joint Congressional briefing on "Turning Around Low-Performing High Schools: Lessons for Federal Policy from Research and Practice" aired on C-Span August 16, 2007.
Link: http://ccsr.uchicago.edu/content/publications.php?pub_id=116

Balfanz, R., Herzog, L., & MacIver, D. J. (2007). Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions. *Educational Psychologist, 42*(4), 1-13.

Abstract: This article considers the practical, conceptual, and empirical foundations of an early identification and intervention system for middle-grades schools to combat stu-

dent disengagement and increase graduation rates in our nation's cities. Many students in urban schools become disengaged at the start of the middle grades, which greatly reduces the odds that they will eventually graduate. We use longitudinal analyses—following almost 13,000 students from 1996 until 2004—to demonstrate how four predictive indicators reflecting poor attendance, misbehavior, and course failures in sixth grade can be used to identify 60% of the students who will not graduate from high school. Fortunately, by combining effective whole-school reforms with attendance, behavioral, and extra-help interventions, graduation rates can be substantially increased. [*PDF included*]

Heppen, J. B., & Therriault, S. B. (2008 July). *Developing early warning systems to identify potential high school dropouts.* **Washington, DC: National High School Center.**

Abstract: This guide discusses the factors that help predict the probability that individual students will eventually drop out of high school prior to graduating and includes step-by-step instructions for building an early warning system. [*PDF included*]
Link: http://www.betterhighschools.com/pubs/ews_guide.asp

Heppen, J.B., O'Cummings, M., & Bowels Therriault, S. (2008 July). *Early warning system tool.* **Washington, DC: National High School Center.**

Abstract: This tool allows educators to input student-level data and automatically calculate whether individual students are on track to graduate or are at risk of dropping out. (Please maximize the document's screen in Excel in order to access all the spreadsheet tabs in the tool.) [*Excel file included*]
Link: http://www.betterhighschools.com/pubs/EWStool.xls

Jerald, C. D. (2006 June). *Identifying potential dropouts: Key lessons for building an early warning data system.* **Washington, DC: Achieve, Inc.**

Abstract: A white paper prepared for Staying the Course: High Standards and Improved Graduation Rates, a joint project of Achieve and Jobs for the Future, funded by Carnegie Corp. of New York. [*PDF included*]

Link: http://www.achieve.org/files/IdentifyingPotentialDropouts.pdf and
http://www.achieve.org/files/FINAL-dropouts_0.pdf

Kennelly, L., & Monrad, M. (2007 October). *Approaches to dropout prevention: Heeding early warning signs with appropriate interventions.* **Washington, DC: National High School Center at the American Institutes for Research.**

Abstract: This report outlines steps that schools can take to identify at-risk students and provide the necessary support systems and relevant interventions to assist students in obtaining a high school diploma. Further, the report discusses the use of early warning data systems to target interventions for groups and individual students, offers a variety of best practice approaches undertaken by higher-performing high schools, and presents effective programs that are currently being implemented to stem the dropout problem. [*PDF included*]
Link:
http://www.betterhighschools.org/docs/NHSC_ApproachestoDropoutPrevention.pdf

Mann, D. (1989). Effective schools as a dropout prevention strategy. *NASSP Bulletin, 73*(518), 77-83.

Abstract: Effective schools research and techniques are useful in developing a strategy for dropout prevention. Early intervention can avoid the necessity of remediation in later years. [*PDF included*]

Neild, R. C., Balfanz, R., & Herzog, L. (2007). An early warning system. *Educational Leadership, 65*(2), 28-33.

Abstract: Part of a special issue on early intervention at every age. Schools can redirect potential dropouts toward graduation by promptly reacting to student distress signals. Research shows that a high percentage of dropouts send distress signals in the middle grades and that a sixth grader with a final grade of "F" in mathematics, a final grade of "F" in English, attendance below 80 percent for the year, or a final unsatisfactory behavior mark in at least one class has at least a three in four chance of dropping out of high school. Meanwhile, ninth graders who earned fewer than two credits or attended school less than 70 percent of the time had at least a 75 percent chance of dropping out of school. Strategies schools can use to help keep students at school are outlined. [*PDF included*]

Pinkus, L. (2008 August). Using early-warning data to improve graduation rates: Closing cracks in the education system. *Alliance for Excellent Education Policy Brief*, 1-14.

Abstract: This brief explores the power of early-warning data in predicting whether a student will drop out, offers examples of current efforts to use such data to guide secondary school interventions across the country, and discusses the policies that can support these efforts. [*PDF included*]
**Link:** https://www.all4ed.org/files/EWI.pdf

Reeves, D. (2007).Teachers step up. *Educational Leadership*, *65*(1), 87-88.

Abstract: Jenks Public Schools in Oklahoma, winner of the 2005 Baldrige Award for school quality, has made remarkable progress with some of the most challenging students in the system by finding the most accurate early warning indicators of student course failures. The school does not wait for a failing grade to institute intervention strategies, intervention is delivered by outstanding faculty members, and intervention strategies include twice the classroom contact hours that had been provided in the past. [*PDF included*]

Roderick, M., & Camburn, E. (1999). Risk and recovery from course failure in the early years of high school. *American Educational Research Journal*, *36*(2), 303-343.

Abstract: For many urban adolescents, the transition to and early years of high school are a time of academic difficulty and increasing school disengagement. In Chicago, over 40% of ninth graders fail one or more major subjects in the first semester. This article examines patterns in the relative risk of course failure and recovery from failure over the first four semesters of high school in one urban school system. It examines how failure rates vary as a function of race, ethnicity, gender, age, and prior achievement and examines between-school variation in student performance. Males and Hispanic students are particularly at risk. Few students recover from grade failure, and early failure often translates into poorer later performance. Schools vary widely in rates of failure and recovery—variation that remains after adjusting for differences in schools' student body composition. Implications for further research and policy are discussed. [*PDF included*]
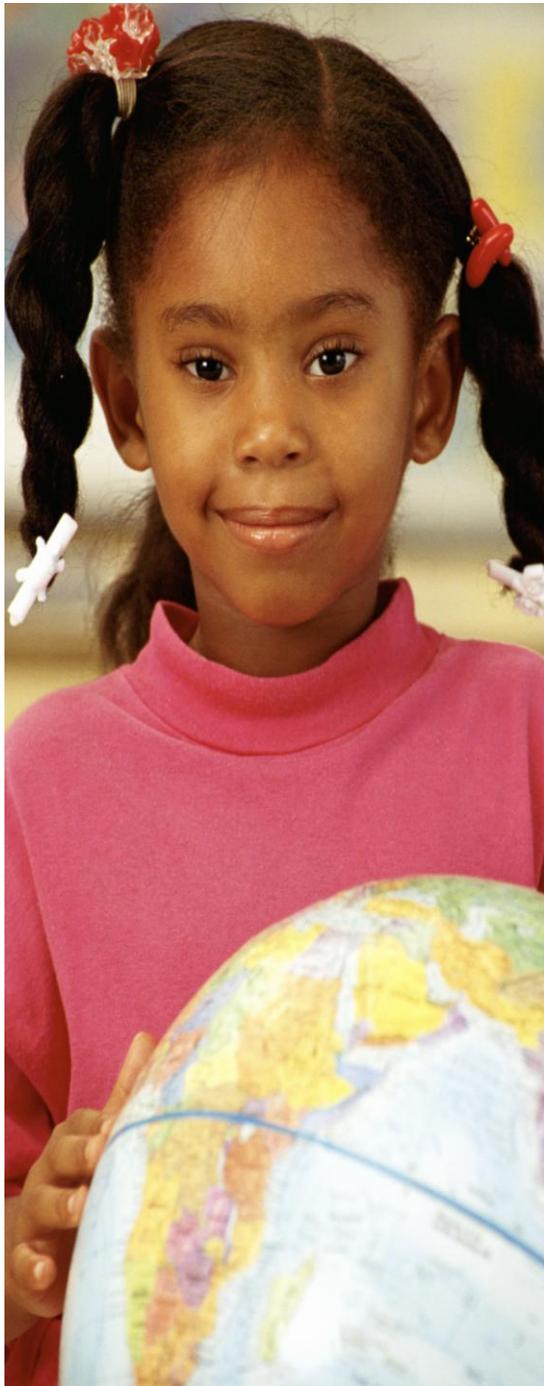
We provide research based information on educational initiatives happening nationally and regionally. The EBE Request Desk is currently taking requests for:

- 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

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