

REGIONAL EDUCATIONAL LABORATORY

SOUTHEAST

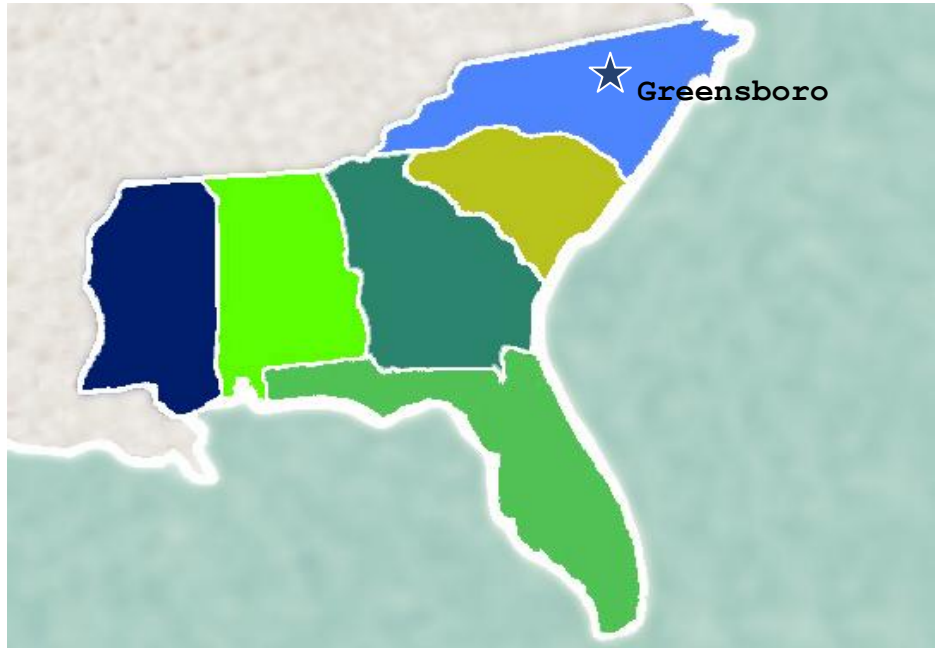
SERVECenter

May 2009, EBE # 470

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:

- Summarize the ways that data are being used in schools, districts, and states, and by researchers to identify students at-risk for not graduating and/or not achieving career and college readiness.

RESPONSE

Evidence-based Education Request: Indicators in Use

Research led by the Consortium on Chicago Public School Research (University of Chicago) and the Center for Social Organization of Schools (Johns Hopkins University), has identified specific indicators—students’ academic characteristics—that provide early signals that students are on a path toward dropping out of high school. Measured at different points in time, typically 6–9th grades, these indicators are used for a variety of purposes from identifying students in need of intervention to school and district accountability ratings.

This Evidence-based Education Request summarizes ways that data are being used in schools, districts, and states, and by researchers to identify students at risk for not graduating and/or not achieving career and college readiness. Searches of Wilson Web, EBSCOHost, and the Education Resources Information Center (ERIC) were performed to gather this information.¹ To add to our findings, we searched well-known papers on such indicators (e.g., Allensworth & Easton, 2007) as well as the websites of reform support and education research organizations known to do work in this area. Finally, we conducted a Google search in order to identify lesser-known sites using these indicators.²

Information in this chart is meant to be informative to schools, districts, and states interested in learning from others who are implementing indicators. The list of places implementing indicators below *is non-exhaustive* and *does not represent all the ways indicators can be formulated or implemented*. In fact, research suggests that each site should undergo its own examination of data, because previously identified indicators (e.g., attendance rates) are not equally predictive across districts and states.

¹ EBSCOHost, Wilson Web, ERIC were searched using the following terms: “on-track indicator”; “on-track indicator”; “early warning system + high school”; “on-track to graduate.”

² Search terms used: “on-track indicators in use in districts” and “on-track to graduation indicators.” Only relevant articles in the first 100 results were evaluated (for each search).

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It is important to know that although most of the sites below have tested the predictive validity of their indicators (testing their relationship to graduation or of career and college readiness), some sites have not. Instead they have replicated indicators others have used or selected indicators based on their own knowledge and experience. How indicators were developed was not always made clear. Also, in some cases, we were unable to identify where in the process a state, district, or school was in implementing the use of indicators (e.g., research, planning, piloting, rolling out, fully established). We have included any ongoing or planned studies on site-specific indicators that we found to be inclusive in the information we share.

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
Anchorage School District	On-track to graduate	End of ninth grade	<ul style="list-style-type: none"> ■ Earned a minimum of 5.5 credits by the end of freshman year ■ Failed no more than one semester of a core subject 	Unclear if there is evidence that these indicators are predictive of graduation rates in ASD. Also unclear how widely or often these on-track indicators are used.	Anchorage School District. (n.d.). <i>On-going overall goals 2008-2009</i> . Retrieved April 13, 2009, from http://www.asdk12.org/school_board/goals.asp
Baltimore City Public Schools	Identify students who are off-track throughout the educational pipeline	Not applicable: Planned research on on-track at multiple grade-levels	In progress	The Baltimore Education Research Consortium is conducting several projects related to on-track using BCPS data: Keeping On-track after First Grade Success; Keeping On-track in the Middle Grades; Keeping On-track in Ninth Grade and Beyond; and Understanding the Process of Dropping Out.	Baltimore Education Research Consortium. (n.d.). <i>On track and on time: Baltimore Education Research Consortium core analytic projects July 2008-June 2011</i> . Retrieved April 6, 2009, from http://baltimoreberc.org/pdfs/On_Track_and_On_Time.pdf
	This is an exploratory study, examining the pathways followed by students enrolled in	Not applicable	<ul style="list-style-type: none"> ■ Repeating grades in middle school ■ Repeating grade nine ■ High rates of school mobility ■ Absenteeism³ 	<ul style="list-style-type: none"> ■ Only one-third of the cohort examined graduated from BCPS on time. Another 20 percent may have graduated on time in their transfer school district.⁴ ■ The following factors were related to dropout: being held back in middle school or ninth grade, high rates of school mobility, and to some extent, absenteeism. Absenteeism 	MacIver, M.A., Durham, R.E., Plank, S.B., Farley-Ripple, and Balfanz, R. (2008). <i>The challenge of on-time arrival: The seven-year flight paths of Baltimore's sixth grades of 1999-</i>

³ There was not a perfect correlation between absences and graduation. Students in the chronically absent group actually graduated at higher rates than students in the never chronically absent group. The authors suggest that some students are able to “slide by,” continuing normal progress toward graduation, despite missing multiple classes throughout the year. Students who were severely chronically absent graduated at much lower rates than students in the other categories. Students considered chronically absent missed at least one-ninth of the school year. Students labeled severely chronically absent missed at least two-ninths of the school year.

⁴ This is if *all* students who had a documented transfer were to graduate.

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
	sixth grade during 1999-2000 in Baltimore City Public Schools.			alone did not appear to inhibit on-time graduation—in fact, students that were chronically absent were more likely to graduate on time than students who were not chronically absent—but <i>may</i> have contributed to other factors that led to dropout.	2000. Baltimore, MD: Baltimore Education Research Commission.
Boston Public Schools (MA)	Researchers identified categories of “dropouts”	9th grade	<ul style="list-style-type: none"> ■ Multiple ninth-grade course failures (first time ninth graders who fail one or more course in English, math, science, or history) ■ One or more eighth grade risk factors (attendance below 80 percent, two or more years over-age, failing multiple courses) ■ Late entrance English language learners ■ Special education students taught in removed environment 	The Pantheon Group found that 75 percent of dropouts from BPS fit into one of the follow categories: failed multiple courses in the ninth-grade; had one or more eighth grade risk factors; were late entrance ELL students; or were special education students taught in a removed environment .	<p>Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i>. Washington DC: Alliance for Excellent Education.</p> <p>Pantheon Group, The. (2007). <i>Strategic planning to serve off-track youth: Data review and strategic implications</i>. Retrieved April 3, 2009, from http://www.ytfg.org/mpgresources/BPSSStratPlanStudy.pdf</p>

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
Chicago Public Schools (IL)	Used to predict students who will graduate from high school in four years Used to produce reports for individual schools in CPS (see Miller, Luppescu, & Correa, 2003 for example).	End of ninth grade	<ul style="list-style-type: none"> ■ No more than one semester F in a core subject ■ Accumulation of five full course credits 	<ul style="list-style-type: none"> ■ “Students who are on-track at the end of their freshman year [have accumulated five full course credits and received no more than one semester F in a core subject] are more than three and one-half times more likely to graduate in four years than off-track students” (Allensworth & Easton, 2005). ■ The on-track indicator could be refined by using pass rates rather than number of semester Fs (Allensworth & Easton, 2005). 	<p>Miller, S.R., Luppescu, S., & Correa, M. (2003). <i>How well do Vivaldi students succeed after elementary school?</i> Chicago, IL: Consortium on Chicago School Research. Retrieved March 30, 2009, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/000019b/80/3a/ed/ac.pdf</p> <p>Allensworth, E.M., & Easton, J.Q. (2005). <i>The on-track indicator as a predictor of high school graduation.</i> Chicago, IL: Consortium on Chicago School Research.</p> <p>Johnson, E. (2008). <i>REA fact sheet on the CPS Freshman on-track graduation rate.</i> Chicago, IL: Department of Applied Research, Chicago Public Schools.</p>
	Used to predict whether students	End of ninth grade	<ul style="list-style-type: none"> ■ GPA ■ On-track vs. Off-Track 	<ul style="list-style-type: none"> ■ The following freshman-year indicators have an overall correct prediction rate of 80 percent: GPA (predict 73% 	Allensworth, E.M., & Easton, J.Q. (2007). <i>What matters for staying on-</i>

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Districts					
	are on-track to graduate		<ul style="list-style-type: none"> ■ Semester course failures ■ Absences 	<p>of nongraduates, 85% of graduates), the off-track/on-track indicator (predict 72% of nongraduates, 85% of graduates), and semester course failures (predict 66% of nongraduates, 89% of graduates).</p> <ul style="list-style-type: none"> ■ "Student absences" has overall correct prediction rate of 77 percent (predict 59% of nongraduates, 90% of graduates). ■ Fall-semester failures and fall-semester absences are both highly predictive of whether or not a student will graduate within four years. With information on fall-semester failures only, it is possible to predict 55 percent of nongraduates and 91 percent of graduates. With information on fall-semester absences only, it is possible to predict 53 percent of nongraduates and 89 percent of graduates. ■ When information about student background and prior achievement is added to information on students' ninth-grade Fs or GPAs, it improves the prediction by only about half a percentage point (to 80.5%). 	<p><i>track and graduating in Chicago Public High Schools: A close look at course grades, failures, and attendance in the freshman year.</i> Chicago, IL: Consortium on Chicago School Research.</p>
Dallas Independent School District (TX)	Identify students off-track for graduation	End of ninth grade	<ul style="list-style-type: none"> ■ No more than one semester F in a core subject ■ Accumulation of five full course credits 	<ul style="list-style-type: none"> ■ Author ran on-track indicator model using two sets of variables: 1) no more than one semester F in a core subject, accumulation of five full course credits (used in CPS study), and 2) no more than one semester F in a core subject, accumulation of six full course credits (reflects Dallas's requirements for student promotion). The author 	<p>Weir, D. (2008). <i>Development of the Dallas ISD on-track indicator, 2007-08</i>. Retrieved March 30, 2009, from http://www.dallasisd.org/eval/evaluation/atglance2009/EA08-153-4-At-a</p>

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Districts					
				<p>found that the first set of variables was slightly more predictive than the second (81% vs. 80%).</p> <p>■ Author found that a student’s grades during the first six weeks of freshman year are highly predictive of his or her on-track status at the end of freshman year. If a student has an F in the first six weeks on a course, he or she is likely to fail the course (75 percent chance), and thus, likely to be off-track to graduation: “While 77% of students who had no core course failures in the first six weeks were on-track at the end of the year, only 36% of those who failed one core course were on-track, and 11% of those who had two failures in the first six weeks were on-track.”</p>	Glance-On-Track-Indicator.pdf
	Identify students off-track for graduation	Elementary, middle, and high school	On-line dashboards track how well students are meeting expectations, discipline referrals, student absences, classroom achievement, and so forth and help teachers and principals monitor student progress and identify students before they fall off-track.	Dashboards have been implemented at 12 high schools, seven middle schools, and two elementary schools. In 2010-2011, dashboards are expected to expand district-wide.	Michael & Susan Dell Foundation. (2009). <i>Michael & Susan Dell Foundation applauds Gates Foundation investment in improving student achievement in Dallas schools</i> . Retrieved April 13, 2009, from http://www.msdf.org/News_and_Resources/MSDF_Press_Releases_Article_Michael__Susan_Dell_Foundation_Appl_auds_Gates_Foundation_Investment_i

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Districts					
			<p>Campus scorecards provide an annual assessment of school performance and progress towards student achievement goals. One indicator tracked is the on-track to graduation rate.</p> <p>Sample middle school on-track indicators:</p> <ul style="list-style-type: none"> ■ Attend 90 percent of classes of more ■ Score 2100 or higher on all TAKS tests and receive no more than one semester “F” in a core subject 		<p>n_Improving_Student_Achievement_in_Dallas_Schools.aspx</p> <p>For example of Dallas ISD middle school scorecard, see http://www.dallasisd.org/scorecards/pdfcards/058E_SPENCE.pdf</p>
Fall River (MA)	Identify future drop-outs	End of fourth grade	<ul style="list-style-type: none"> ■ C- academic GPA ■ Twenty-fifth percentile of class 	“Early dropouts” (students that drop out of school between seventh and ninth grade) can be identified as early as the fourth grade. In general, future early dropouts had a C- average and ranked in the twenty-fifth percentile (Roderick, 1993. In Pinkus, 2008).	Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.
Los Angeles	Los Angeles has the	Throughout middle	High school at-risk indica-	■ High school at-risk list calculates students’ “risk degree.”	Lim, C., & Pirone, J. (n.d.). <i>Using da-</i>

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Districts					
Unified School District (CA)	<p>following systems in place to identify at-risk student:</p> <ul style="list-style-type: none"> ■ At-risk lists developed for the Dropout Prevention Office ■ Early alert system ■ Potential dropout lists 	school and high school	<p>tors:</p> <ul style="list-style-type: none"> ■ Age minus grade index ■ Attendance rate ■ Cumulative GPA ■ Number of “unsatisfactory” marks in work effort ■ Number of Fs on Achievement Marks <p>Middle school at risk indicators:</p> <ul style="list-style-type: none"> ■ Far Below Basic in CST in ELA or math ■ Two or more Fs in last semester ■ Cumulative GPA below 1.5 ■ Far Below Basic in ELA or Math Periodic Assessment (most recent) ■ Attendance rate below 90% ■ One or more suspensions 	<ul style="list-style-type: none"> ■ Middle school at-risk list can be sorted by number of student risk factors. ■ Early alert system identifies students who have had declines in performance (CST English/Language Arts, calc. yearly; CST Mathematics, yearly; Attendance, monthly; Mathematics assessment, quarterly; Language Arts assessment, quarterly; GPA, grading period; work habits, grading period). ■ LAUSD also maintains of “potential dropouts” (split into three categories: potential leaver dropouts, potential no show dropouts, potential no show matriculating dropouts). 	<p><i>ta for dropout prevention: Can we identify at risk students before it’s too late?</i> PowerPoint. Retrieved April 14, 2009, from http://www.myfuturemydecision.org/ourpages/auto/2008/5/1/1209652805638/Data%20Driven%20Decision%20Making.ppt#1</p>
Philadelphia	Identify future	Sixth grade	<ul style="list-style-type: none"> ■ A final grade of F in mathematics 	<ul style="list-style-type: none"> ■ Sixth grade students who display even one “signal” identified by the authors (attend class less than 80 percent of 	Neild, R., Balfanz, R., & Herzog, L.

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
(PA)	drop-outs and provide tiered interventions in an effort to prevent students from exiting the system.		<ul style="list-style-type: none"> ■ A final grade of F in English ■ Attendance below 80 percent ■ A final “unsatisfactory behavior” mark in one or more classes 	<p>the time, receive a final course grade of F in mathematics or English, or who receive an “unsatisfactory behavior” mark at the end of one or more courses) are likely to drop out of high school.</p> <ul style="list-style-type: none"> ■ By the end of freshman year, 80 percent of eventual dropouts will have shown one or more of these “red flags.” ■ Ninth graders that earned fewer than two credits or had an attendance rate of 70 percent or lower, had more than a 75 percent chance of dropping out of school. 	<p>(2007). An early warning system. <i>Educational Leadership</i>, 65(2), 28-33.</p> <p>Neild, R., & Balfanz, R. (2006). <i>Unfulfilled promise: The dimensions and characteristics of Philadelphia’s dropout crisis, 2000-2005</i>. Philadelphia, PA: Philadelphia Youth Network, The Johns Hopkins University, and the University of Pennsylvania.</p>
Portland (OR)	Identify students at-risk for failing to graduate; determining when students are most likely to disengage from school (year and quarter)	Authors used multivariate, longitudinal cohort analysis to look at the progress of every student in the graduating Class of 2004 and identify markers that students were at-risk of not graduating.	<ul style="list-style-type: none"> ■ Whether or not students met state standards in 8th grade ■ Year and time of year ■ Failing one or more courses during freshman year ■ Having insufficient credits ■ Nonconventional entry (didn’t start at school in 9th grade and stay at school throughout duration of high school) 	<ul style="list-style-type: none"> ■ There are certain times when students are more likely to disengage (summer and end of 12th grade). ■ Using more than one indicator increases ability to predict whether or not student will fail to graduate. ■ “The risk of leaving school without graduating is 6 times higher for students who are over-age, repeat grades, enter after 10th grade, and transfer inside/ outside the district than for those who follow the conventional pattern of high school attendance.” ■ Transferring within district, increased student’s likelihood of graduating, suggesting students may have been able to find a program which was a better fit. 	<p>Cielo, M.B., & Leveen, L. (2007). <i>The fourth R: New research shows which academic indicators are the best predictors of high school graduation—and what interventions can help more kids graduate</i>. Portland, OR: Connected by 25. Retrieved April 3, 2009, from http://www.connectedby25.org/resources/</p>
Prince	Prince George’s	■ Freshman Watchlist	■ <i>Watchlist:</i>	■ Research has suggested that graduation rates at PGCP	Prince George’s County Public

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
George’s County Public Schools (MD)	County Public Schools is rolling out an early warning system to identify at-risk students	Report (for use during summer and Quarter) 1): Lists incoming ninth graders with risk factors (includes information on 8 th grade attendance, grade data, age, MSA scores, subgroup information, and feeder school) ■ Freshman Success Report (for use during Quarters 2, 3, and 4): includes “ongoing information on current freshman”; released quarterly, and can be used to track student risk factors related to attendance and course grades	1. Student has more than nine absences in eighth grade 2. Student has a D or lower as a final grade in eighth grade course ■ Freshman Success Report: 1. Student has more than two absences in the last quarter 2. Student has a D or lower according to the last quarterly report card	are less sensitive to attendance rates (compared to the literature).	Schools. (n.d.). <i>Performance management and early warning reports: Supporting transitions for high school students</i> . Retrieved April 6, 2009, from http://www.boarddocs.com/mabe/pgcps/Board.nsf/7f0976c2db2919ff8725732800681a69/8a729ec367fdd509872575700078308a/\$FILE/Early%20Warning%20and%20HSA%20Update.pdf
Richmond	RCS uses the RHS	daily	Some measures used by the	According to Richmond Community Schools’ website, the	Find more information at:

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Districts					
Community Schools (Richmond, IN)	Graduation Pipeline to generate a daily graduation metric for the district; the tool also allows administrators to monitor risk indicators for students		RHS Graduation Pipeline tool: <ul style="list-style-type: none"> ■ GQE pass or fail ■ Credit thresholds ■ Information on transfers ■ IEP that leads to Certificate of Completion ■ Dropout data 	district will share its tool with interested parties.	http://www.rcs.k12.in.us/district/kpi/RHS/pipelinemetrics.asp
States					
Kentucky	Use students’ high school data, plus data from first few years of college to determine if student is at-risk of dropping out from college		In progress	This study is in progress.	Study is being conducted by the Everyone Graduates Center and Jobs for the Future. See http://www.every1graduates.org/about.html for more information
Louisiana	Identify at-risk students in order to provide them with interventions	Unknown	<ul style="list-style-type: none"> ■ Student attendance ■ Student course achievement ■ Student behavior ■ Student age 	<ul style="list-style-type: none"> ■ Louisiana contracted with a regional software vendor to buy a pre-made early warning module. Louisiana is using data collected from the schools to verify and strengthen the accuracy of the indicators. ■ School and district leaders receive twice-monthly reports on data. 	Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.

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Districts					
Massachusetts	Massachusetts has considered creating a college- and work-ready indicator, as well as developing an early warning system to help districts and states identify students at-risk of dropping out.	Unknown	<p>Possible indicators of being ready for college and work:</p> <ul style="list-style-type: none"> ■ Completing the MassCore ■ Earning a Certificate of Mastery or of Occupational Proficiency ■ Participating in AP or IB courses and earning minimum scores or above ■ Earning college credits while enrolled in high school <p>Possible indicators of students at-risk for dropping out: recommended that Board of Education analyze state level data to find best indicators (i.e., look at attendance in middle school, retention in middle school, first-time ninth graders :off-track” to promotion to the 10th grade, 9th grade repeaters, students who are over-</p>		Jobs for the Future & Achieve, Inc. (2007). <i>High standards and graduation rates: Moving forward on a dual agenda in Massachusetts</i> . Retrieved April 13, 2009, from https://www.policyarchive.org/bitstream/handle/10207/8661/DualAgendaInMass.pdf?sequence=1

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
			age for grade)		
Texas	Identify students on-track to graduate	Unknown	<p>The following are suggested measures for evaluating student progress toward graduation--as a whole—not as individuals. Whether or not these on-track indicators are directly predictive of student graduation rates is not established in this report.</p> <ul style="list-style-type: none"> ■ Percent passing Grade 8 All TAAS tests (for all students and by groups of students) ■ Percent passing Grade 8 TAAS by subject (for all students and by groups of students) 	<p>Texas has produced a document entitled “How to use the 2003 Early Indicator Reports.” How many and what districts are using early indicators is not described in this report. The purpose of the report is to inform: “This document uses results from the state 2003 Early Indicator Report, Part I, to illustrate analyses that educators may wish to reproduce with local results. In each case, an example expectation is defined and then evaluated. These example expectations are for illustration only; they are <u>not</u> accountability rating standards. As these early indicator reports are designed to focus on preparing students to meet the new exit-level testing requirement, the ultimate goal is for all students to be eligible to graduate.”</p>	<p>Texas Education Agency. (2001). <i>How to use the 2003 Early Indicator Report</i>. Retrieved April 13, 2009, from http://ritter.tea.state.tx.us/taa/perfrepor t010309how.doc</p>

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Administered	Variables	Findings/ More Information	Source
Districts					
			<ul style="list-style-type: none"> ■ Cumulative end-of-course performance (for all students and by student groups) ■ Pass rates of end-of-course examinations by subject (for all students and by student groups) ■ Graduation rate of Class of 1999 		
Schools					
Abbeville High School (LA)	Used to identify students who are at-risk and provide them with needed supports	Ninth grade	<ul style="list-style-type: none"> ■ Discipline records ■ Attendance records ■ Overall GPA ■ Decline in GPA 	At-risk student are identified every three weeks using indicators and provided with interventions. Students remaining at-risk receive progressively stronger interventions. When used with the freshman academy, this system of identifying and supporting at-risk students decreased the number of ninth graders who were not promoted to the tenth grade by 50 percent.	Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.
Chief Sealth, Franklin, and West Seattle (Seattle, WA)	To identify students at-risk of dropping out in three Seattle schools receiving money through the	Ninth grade	<ul style="list-style-type: none"> ■ Failure to meet standard on 8th-grade state assessments ■ An ‘F’ in math or English in middle school ■ An ‘F’ in any course in 9th 	<ul style="list-style-type: none"> ■ On October 27, 2008, District Superintendent Maria Goodloe-Johnson sent a letter to High School Instructional Director Michael Tolley describing the High School Academic Achievement Program and asking for its approval. The High School Academic Achievement Program was designed to improve graduation rates in 	Goodloe-Johnson, M. (2008). <i>School Board Action Report</i> . Seattle, WA: Seattle Public Schools. Retrieved April 13, 2009, from http://www.seattleschools.org/area/board/08-09agendas/111208

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Districts					
	High School Academic Achievement Program – Families & Education Levy		grade <ul style="list-style-type: none"> ■ Falling behind in required credits for graduation ■ Suspension or expulsion ■ Absenteeism rate of 10% or higher ■ Failure to be promoted to 10th grade 	three Seattle schools, using interventions and data-tracking. <ul style="list-style-type: none"> ■ The indicators were gathered from studies of early warning systems in Portland, Chicago, and Philadelphia, as well as several guides to building early warning systems, dropout prevention, etc. 	agenda/felhighreport.pdf
Feltonville School of Arts and Sciences and the Upper School of Cooke Elementary (Philadelphia, PA)	Used to identify at-risk students and provide them with supports as part of the pilot-program, <i>Keeping Middle Grades Students On-Track to Graduation: the Early Warning Indicators Project.</i>		<ul style="list-style-type: none"> ■ Poor attendance ■ Behavior problems ■ F in English ■ F in Math 	<ul style="list-style-type: none"> ■ Staff can track students’ early warning indicators using an online tool. ■ Students identified as at-risk are met with varying levels of interventions. ■ City Year Corp members have been instrumental in helping monitor attendance, tutoring, instructing small groups, mentoring, and serving as positive role models. ■ EWI costs about \$150,000 to \$400,000 a year, depending on school size and level of implementation. ■ Fifty-four percent of the 250 students who were “off-track” to graduation at the beginning of the 2008-09 school year at FSAS have shown improvement in their risk-area, while two-thirds of students have improved their math and English grades. 	Herzog, L. (2009). Two schools use ‘early warning’ system to avoid dropouts. <i>Focus On Keeping Students On Track</i> . Retrieved April 2, 2009, from http://www.thenotebook.org/spring-2009/091091/two-schools-use-%E2%80%98early-warning%E2%80%99-system-avert-dropouts
Jenks High School (Jenks)	Identify whether or not student will	End of eighth grade	Indicators that student is likely to fail ninth grade		Reeves, D. (2007). Teachers step up. <i>Educational Leadership</i> , 65(1), 87-88.

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Districts					
Public Schools in OK)	pass courses. Teachers intervene before student fails course.		math: ■ D in English or math in 8th grade ■ Failure on a criterion-referenced reading or math test		
New Visions for Public Schools (New York City, NY)	Information used to produce schoolwide reports on student progress and to produce individual-level reports to share with students and parents	High school students	■ Course credits ■ Pass grades in end-of-course Regents exams ■ Other indicators for college readiness		Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.
		Middle school students	In progress		Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.
T.C. Williams High School (Alexandria, VA)	The school aims for each student to have a Lexile Score of 1300 or higher by twelfth grade. This score has been identified by the	Students’ are assessed from sixth grade on.	■ Lexile score	With interventions, students are passing state reading test on second try.	Pinkus, L. (2008). <i>Using early-warning data to improve graduation rates: Closing cracks in the education system</i> . Washington DC: Alliance for Excellent Education.

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Adminis- tered	Variables	Findings/ More Information	Source
Districts					
	school as a proxy for work and college readiness. Students who do not meet grade-level markers receive additional supports.				
National					
Members of the 2005 and 2006 high school graduating classes; only students who had taken the EXPLORE, PLAN, and ACT	Identify whether students are on-track for career and college readiness	End of eighth grade	■ Student’s eighth grade-achievement, as measured by EXPLORE scores	<ul style="list-style-type: none"> ■ The authors found that students’ eighth grade achievement (EXPLORE test scores) is a better predictor of college and career readiness than student background characteristics, standard coursework, advanced/honors coursework, high school GPA, and student testing behaviors. ■ The authors examined which of the following have the greatest impact on student career and college readiness: maintaining a B average, earning higher grades, taking a core curriculum, taking additional standard courses, taking advanced or honors courses, meeting EXPLORE College Readiness Benchmarks, and increasing EXPLORE scores 2 points. They found that increasing EXPLORE scores 2 points has the greatest impact on student career and college readiness. ■ The authors measure career and college readiness using 	ACT. (2008). <i>The forgotten middle: Ensuring that all students are on target for college and career readiness before high school</i> . Retrieved April 10, 2009, from http://www.act.org/research/policymakers/pdf/ForgottenMiddle.pdf

Location (District/ State/ School)	Purpose of using Early Warning Indicators	When Indicator is “Administered”/ Should be Adminis- tered	Variables	Findings/ More Information	Source
Districts					
				<p>student performance on the ACT in grade 11 or 12. Note: Because the EXPLORE and ACT are aligned, it makes intuitive sense that students who perform better on the EXPLORE might also perform better on the ACT later on in their educational career. Had another measure of career and college readiness been used instead of ACT, results <i>may</i> have been different.</p>	

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