



Using an Early Warning System to Identify and Support Students at Risk for High School Dropout



What are Early Warning Systems?

The United States high school dropout problem has been called a national crisis, with only 74.9% of public high school students graduating with a diploma in 2008.¹ With states and districts under mounting pressure to raise graduation rates, there is increasing urgency to obtain more accurate and timely data to systematically identify students most likely to drop out of high school so that dropout prevention supports can be offered to get them back on track to graduate. Early warning systems can help educators predict which students may be in danger of dropping out of high school by using indicators based on readily available school-level data (e.g., attendance and course performance).

To facilitate the establishment and use of early warning systems across the nation, the National High School Center has developed an **Early Warning System Implementation Guide** and a free downloadable Microsoft Excel-based tool, the **Early Warning System (EWS) Tool v2.0**.² The EWS Tool v2.0 is based on research on the academic and behavioral predictors of dropout and can be used by schools, districts, and states to identify students who are at risk for dropping out of high school.

¹Stillwell, R. (2010). *Public School Graduates and Dropouts from the Common Core of Data: School Year 2007-08* (NCES 2010-341). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.

²The National High School Center released a first version of an Early Warning System Tool in 2008, now referred to as EWS Tool v1.0.



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About the National High School Center
 The National High School Center at the American Institutes for Research (AIR) serves as a central source of information and expertise on high school improvement for the Regional Comprehensive Centers (RCCs) and the states they serve, as well as high school stakeholders across the nation. Jointly funded by the Office of Elementary and Secondary Education (OESE) and the Office of Special Education Programs (OSEP) at the U.S. Department of Education, the National High School Center provides the latest research, user-friendly tools and products, and high-quality technical assistance on high school improvement issues. Through our work, we aim to ensure that all students perform to their fullest potential and are adequately prepared for college, work, and life after high school.



For more information, please contact:

National High School Center
 American Institutes for Research
 1000 Thomas Jefferson St., NW
 Washington, DC 20007

Phone: 1-800-634-0503
 Fax: 202-403-5875
 TTY: 1-800-634-0752

Web site: www.betterhighschools.org
 Questions about EWS: EWS@betterhighschools.org

Why Are Early Warning Systems Important?

Early warning systems rely on data that are readily available and maintained by a school – such as attendance and course performance – and are good predictors of whether a student may have the potential for dropping out of high school.

Schools can use information from an early warning system to support students who are at risk of dropping out with both school-wide strategies and targeted interventions.

Districts and schools can use early warning system data to examine school-level patterns in the current school year and over time, in order to address systemic issues that may be impeding a student's ability to graduate.

EWS Tool v2.0: Risk Indicator Summary Report



This school-wide report, produced by the National High School Center's EWS Tool v2.0, shows the number of students who are flagged and not flagged for each indicator of risk during a selected grading period or time frame (e.g., attendance and course performance).

EWS Tool v2.0

The National High School Center’s EWS Tool v2.0 takes student data on absences, course failures, grade point averages, and credit attainment per grading period and uses a set of research-based thresholds (summarized in the table below) to automatically identify, or “flag,” students who are at risk for dropping out of high school.

Indicators and Thresholds in the EWS Tool v2.0

Risk Indicator	Timeframe(s)	Risk Indicator Threshold (Flagged)
Attendance	First 20/30 days; End of each grading period; End of year	Missed 10% or more of instructional time (absences)
Course Failures	End of each grading period; End of year	Failed one or more semester course (any subject)
GPA	End of each grading period; End of year	Achieved 2.0 or lower (on a 4-point scale)
Consortium on Chicago School Research’s End of Year (On-track) Indicator ³	End of year	Failed two or more semester core courses, or accumulated fewer credits than the number required for promotion to the next grade

If a student’s performance falls below a given threshold, the student is flagged as being “at risk.” This information about flagged students can be used to inform the selection of interventions and supports to keep students in school and on track for graduation.

³Allensworth, E., & 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 freshman year*. Chicago: Consortium on Chicago School Research; Allensworth, E., & Easton, J. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago: Consortium on Chicago School Research.

Features of the EWS Tool v2.0

Some of the features of the EWS Tool v2.0 include the capability to:

- Import and/or enter student demographic and performance data;
- Include a locally defined pre-high school indicator that is based on students’ performance data in middle grades;
- House an inventory of dropout prevention (and related) interventions available to students;
- Record information about assignments of students to intervention programs;
- Monitor student response to and progress in the interventions;
- Create multiple graphical and tabular reporting options that allow users to quickly access school-level summary reports, detailed student-level reports (see screenshot below), and individual student reports; and
- Use pre-set or customized reporting features.

EWS Tool v2.0: Student Risk Status

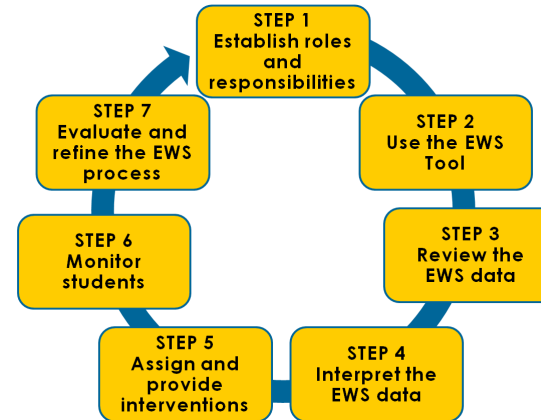
Student Details		Pre-High School Indicator of Risk	Quarter 1 Indicators of Risk			Quarter 2 Indicators of Risk		
Student ID	First Name	Last Name	Flag for Pre-HS Indicator	Flag for First 20 Day Attendance	Flag for Course Attendance	Flag for Course GPA	Flag for Attendance	Flag for Course GPA
1122100	Guileta	Adams	No	No	No	No	No	No
1122101	Greta	Andrews	Yes	Yes	No	Yes	No	Yes
1122102	Peter	Andrews	No	No	No	No	No	No
1122103	Katherine	Balkauskas	Yes	Yes	No	No	Yes	Yes
1122104	Chad	Barna	No	No	No	No	No	No
1122105	Denise	Boyles	No	No	Yes	No	No	Yes
1122106	Mimi	Cao	No	No	No	No	No	Yes
1122107	Clare	Cartwright	No	No	Yes	No	No	No
1122108	Andrea	Crowder	Yes	---	No	No	No	Yes
1122109	Linda	Day	Yes	No	---	---	Yes	Yes
1122110	Bradley	Dietrich	No	Yes	No	No	Yes	Yes
1122111	Jennifer	Dunn	No	No	No	No	No	No
1122112	Kimberly	Eston	Yes	---	No	No	---	---
1122113	Sharon	Fanning	No	Yes	No	Yes	No	Yes
1122114	Singer	Gatta	No	No	No	No	No	No
1122115	Juana	Gomez	No	No	No	No	No	No

This screenshot of the EWS Tool v2.0 shows one way the tool identifies students who are at risk. The tool highlights the at-risk students’ names in red, as well as the indicators and time frames for which each student has been flagged.

Implementing an Early Warning System

Implementing an early warning system is a promising approach to effective dropout prevention and is supported by recent field research.⁴ The National High School Center has devised a seven-step implementation process to support the establishment and implementation of early warning systems for identifying and monitoring students who are at risk for dropping out of high school.

Early Warning System Implementation Process



The process, shown in the diagram above, is based on research about data-driven decision-making. Each of the seven steps is depicted as distinct, but they are intended to be part of a cyclical process over the course of a school year. This data-driven decision-making process focuses users on the key early warning indicators and encourages discussions about individual students who are showing signs of risk for dropping out of high school. The steps guide users to make informed decisions about how to support at-risk students and how to continue to monitor their progress over time. In addition to focusing on individual students, the process guides users to examine the success of specific supports or interventions and to examine possible systemic issues (e.g., school climate) that may relate to dropout trends.

⁴Allensworth, E., & Easton, J. Q. (2007).

National High School Center Resources on Early Warning Systems

More information on early warning systems is available on the National High School Center’s Web site, www.betterhighschools.org/ews.asp, including:

National High School Center Early Warning System (EWS) Tool v2.0

The EWS Tool v2.0 enables schools and districts to identify students who may be at risk for dropping out of high school and to monitor these students’ responses to interventions. The EWS Tool v2.0 runs in Microsoft Excel and can be downloaded free-of-charge.

Early Warning System Implementation Guide

The Implementation Guide builds the capacity of school- and district-level practitioners to analyze data from the EWS Tool v2.0. The guide details the seven-step implementation process, which is intended to support school and district efforts to systematically identify students who are at risk for dropping out of high school, match these students to appropriate interventions, and monitor students’ progress. The graphic to the left shows the sequence of this seven-step process.

National High School Center Early Warning System Tool v2.0 Technical Manual

The technical manual provides basic information about how to use the EWS Tool v2.0.

