

# Early Warning System Implementation Guide

**For use with the National High School Center's Early Warning System Tool v2.0**

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# Early Warning System Implementation Guide

*For use with the National High School Center's Early Warning System Tool v2.0*

## Overview

This Early Warning System (EWS) Implementation Guide is a supporting document for schools and districts that are implementing the National High School Center's Early Warning System (EWS) Tool v2.0. Developed by the National High School Center at the American Institutes for Research (AIR), the guide and tool support the establishment and implementation of an early warning system for identifying and monitoring students who are at risk of dropping out of high school.

This Implementation Guide is designed to build the capacity of school- and district-level practitioners to analyze data from the EWS Tool v2.0.<sup>1</sup> The aim of the guide and the tool is to support school and district efforts to systematically identify students who are showing signs that they are at risk of dropping out of high school, match these students to interventions to get them back on track for graduation, and monitor students' progress in those interventions. The guide describes an implementation process that draws on the research on data-driven decision making.<sup>2</sup> The process has seven steps:

1. Establish roles and responsibilities
2. Use the EWS Tool v2.0
3. Analyze the EWS data
4. Review the EWS data
5. Assign and provide interventions
6. Monitor students and interventions
7. Evaluate and refine the EWS process

The guide is organized so that each of the seven steps constitutes a section of the guide. Because of its emphasis on individual student identification and monitoring, this guide primarily focuses on supporting EWS efforts at the *school level*. However, for each step of the process, the critical role of the district in supporting school-level EWS work is explicitly discussed.

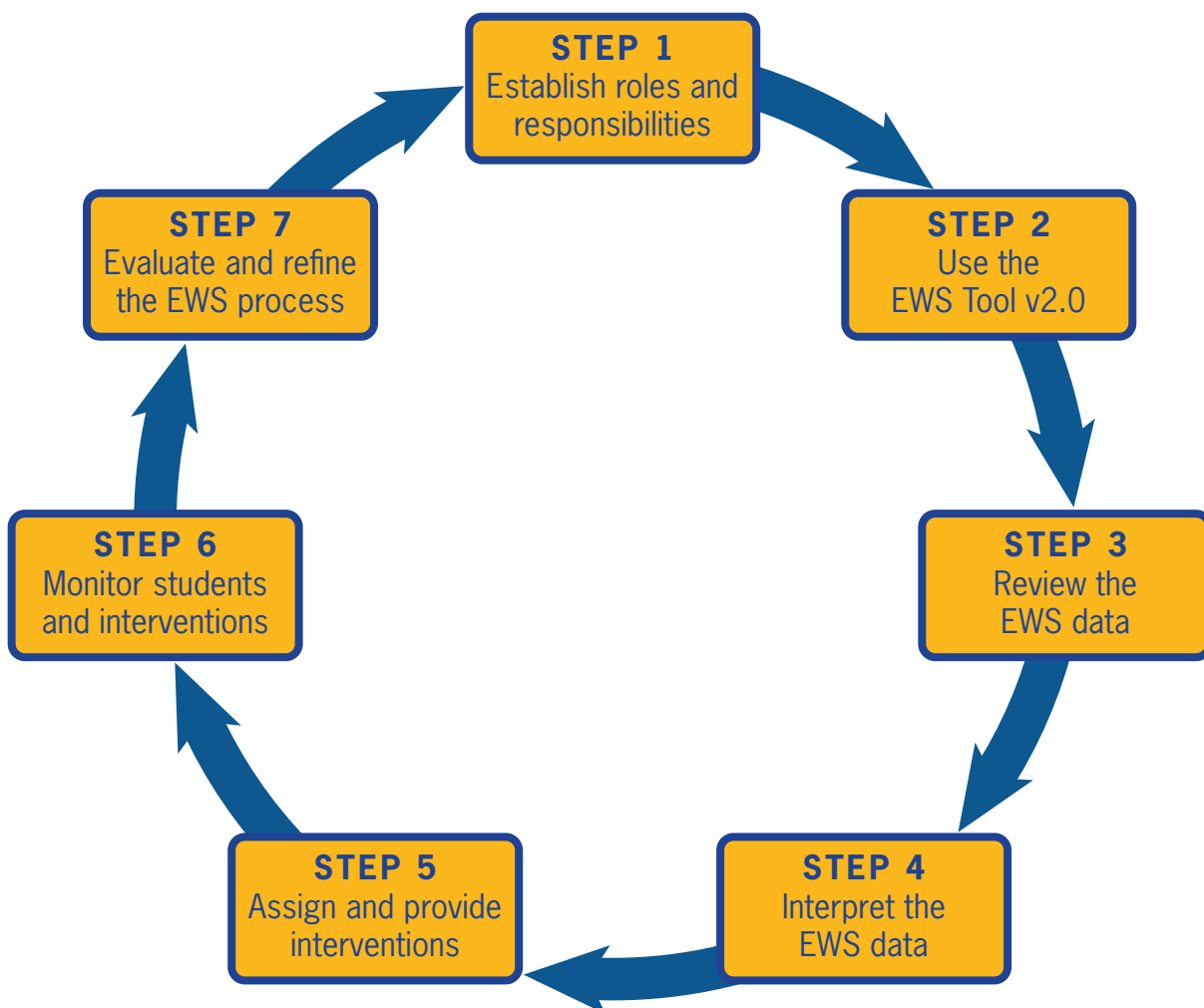
## How to Use the Guide

In each section or step, this guide briefly describes the step, anticipated outcomes, guiding questions to support implementation of the step, and the role of the district. The guiding questions are in two main categories: shorter-term and longer-term strategies. The short-term guiding questions are intended for EWS team members focused on examining student needs and matching students to interventions within a given school year. The longer-term guiding questions focus the EWS team on systemic and further-reaching issues and strategies to improve school and district outcomes, often over the course of multiple school years. Thus, it is anticipated that new users of the tool will focus on the short-term questions and over time will be ready to delve into long-term questions.

## SEVEN-STEP EWS IMPLEMENTATION PROCESS

In this guide, the seven steps are described as distinct, but they are intended to be cyclical. Figure 1 illustrates the cycle. At the core of this data-driven decision-making process, the steps focus users on the key indicators that identify which students are showing signs of risk for dropping out of high school and guide users through a process that supports informed decisions on the basis of these indicators and other relevant information. The process emphasizes using the EWS Tool v2.0 (available along with the accompanying EWS Tool v2.0 Technical Manual at <http://www.betterhighschools.org/ews.asp>), but it may also be used as a guide for an alternative research-based early warning system.

Figure 1. Early Warning System Implementation Process



Early warning systems provide information about which students are displaying risk factors that predict an increased likelihood of dropping out of high school. Once identified, students can be connected to dropout prevention interventions and monitored throughout the school year. Ideally, an early warning system allows users to identify students with accuracy and provide supports to students through interventions, resulting in improved graduation outcomes for students.

## TIMEFRAME

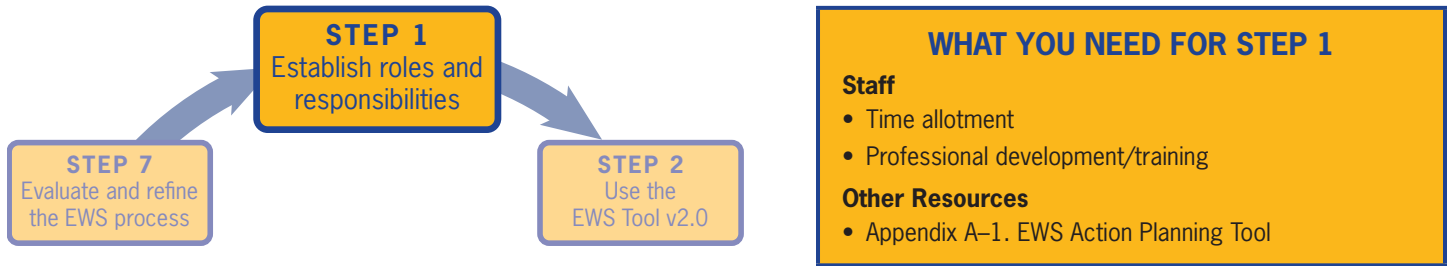
The EWS implementation process is carried out over the course of the year and is aligned with the academic calendar. Specific steps are undertaken during defined periods of the year, many in a recurring or continuous manner, so that the process of reviewing early warning data and identifying appropriate dropout strategies and interventions is timely and responsive to individual student needs.

In the longer term, the process allows ongoing evaluation and revision across academic years to ensure that the EWS achieves maximum efficiency and efficacy in the local context. Table 1 provides an example of a schedule for implementing an early warning system for incoming ninth graders.

**Table 1. Example Schedule for Implementing an Early Warning System for Incoming Ninth Graders**

Schedule	Process/Steps
Summer before the ninth-grade year	<ul style="list-style-type: none"> <li>Form/designate an EWS team (Step 1)</li> <li>Provide professional development to EWS team on the Early Warning System implementation process (Steps 1 &amp; 2)</li> <li>Convene the EWS team (Step 1)</li> <li>Set up the EWS Tool v2.0 (Step 2)</li> <li>Import or enter student information and, if available, pre-high school data into the EWS Tool v2.0 (Step 2)</li> <li>Review and interpret student needs on the basis of data from the previous year (Steps 3 &amp; 4)</li> <li>Identify interventions (e.g., bridge programs) for incoming ninth-grade students on the basis of the identified needs (Step 5)</li> </ul>
At the beginning of the ninth-grade year	<ul style="list-style-type: none"> <li>Reconvene the EWS team (Step 1)</li> <li>Verify student information, especially enrollment status (Step 2)</li> <li>Review pre-high school or previous year data, including any additional information (e.g., bridge program participation, summer school participation, grades) to review and interpret student needs (Steps 3 &amp; 4)</li> <li>Identify and implement student interventions or supports on the basis of pre-high school information, if available (Step 5)</li> </ul>
After the first 20 or 30 days of the ninth-grade year	<ul style="list-style-type: none"> <li>Import or enter students' absences (Step 2)</li> <li>Review and interpret student- and school-level reports (Steps 3 &amp; 4)</li> <li>Identify and implement student interventions (Step 5)</li> <li>Monitor students' initial response to interventions (Step 6)</li> <li>Revise students' intervention assignments, as needed (Steps 5 &amp; 6)</li> </ul>
After each grading period	<ul style="list-style-type: none"> <li>Import or enter students' absences, course failures, grade-point average (GPA), and credit accumulation, by grading period (Step 2)</li> <li>Review and interpret student- and school-level reports (Steps 3 &amp; 4)</li> <li>Identify and implement new student interventions (Step 5)</li> <li>Monitor students' responses to existing interventions in which they are participating (Step 6)</li> <li>Revise students' intervention assignments, as needed (Step 5 &amp; 6)</li> </ul>
At the end of the school year	<ul style="list-style-type: none"> <li>Import or enter students' absences, course failures, GPA, and credit accumulation (Step 2)</li> <li>Review and interpret student- and school-level data (Steps 3 &amp; 4)</li> <li>Identify and implement new student interventions (Step 5)</li> <li>Monitor students' responses to existing interventions in which they are participating (Step 6)</li> <li>Revise students' intervention assignments for summer and for the next academic year, if needed (Step 5 &amp; 6)</li> <li>Evaluate the EWS process, using student- and school-level reports, and revise as necessary (Step 7)</li> </ul>

## STEP 1—Establish Roles and Responsibilities



### DESCRIPTION OF STEP 1

A diverse, well-informed EWS team is essential to the success of this process. This section focuses on team composition within the school and the district. The EWS team may be established as a new team or may build on or be integrated into existing teams (e.g., school improvement team, response to intervention team, student support team). **It is not necessary to create an entirely new team for EWS work**, but an existing team that takes on the responsibility to use the tool for dropout prevention efforts should include a broad representation of staff within the school and, ideally, the district (e.g., principals, teachers, district administrators, specialists). Additionally, the EWS team must receive professional development on the process and EWS Tool v2.0 and subsequently be given adequate time to implement the EWS process. Whether the EWS work is the responsibility of a new team or incorporated into the responsibilities of an existing school team, it is vital that the EWS work be a main priority of the designated team.

#### EWS Team Meetings

EWS teams should meet regularly. At a minimum, EWS teams should meet after the first 20 or 30 days of school and shortly after the end of each grading period. The focus of EWS team meetings is to review and discuss the information available in the tool, particularly about individual students who have been identified as at risk for dropping out. The EWS team considers interventions for each identified student and then continues to use the EWS data to closely monitor students to ensure that the assigned interventions are adequately supporting each student. Continuous monitoring of students who display indicators of risk will improve the EWS team's ability to match appropriate interventions to these students and will allow mid-course corrections if a particular student does not seem to improve after being assigned to an intervention.

#### Forming and Maintaining an Active EWS Team

EWS teams should consist of personnel who have the authority to make decisions about staff and students and who know a diverse array of students. Although it is good to rotate and engage more staff in the process over time, some individuals should continue to serve on the team over multiple years to ensure continuity and consistency. The following are some examples of staff who may be on the EWS team:

- The school principal or assistant principal
- Representative from feeder middle schools
- Guidance counselors
- Content area teachers
- Special education teachers
- English language learner instructors
- District office representative

Additionally, the team must be given a regular, designated time and space to meet and be clear in its purpose. For example, a team might be given an opportunity to meet monthly during the school day and either be tasked to develop a written statement of purpose or provided with a written statement of purpose to increase the focus of the team and the team meetings.

### **Roles and Responsibilities of EWS Teams**

As part of their implementation of the seven-step EWS process, the EWS team should do the following to ensure the functioning of the EWS team and effective communication throughout the school:

- ***Conduct EWS team meetings that are well organized and documented.*** An agenda for each meeting should be prepared at the end of the prior meeting, and at least some agenda items should be routine, such as a review of the data from the tool, actions taken for individual or groups of students, a review of previous meetings action items (ongoing or completed), new action items, and communication with staff and leadership. Notes should be taken at each meeting and include action items assigned to specified individuals to accomplish. Last, agenda and meeting notes should be kept on file to provide a record of the team's work.
- ***Communicate with individuals and groups outside of the EWS team.*** Information on flagged students, intervention effectiveness, and team-identified needs to support students should be routinely reported to school and district leadership. Teachers should receive regular updates about students in their classes who are displaying indicators of risk, as well as information about supports available to them to work with these students. Last, students and their parents should be kept informed of their risk status and the plans to ensure that they are able to get back on track for graduation. Although the EWS team may not be directly responsible for meetings with individual students and their parents, the team should be in a position to prompt such meetings or to share information routinely about student progress and the early warning symptoms of risk. Of critical note, the team should share the knowledge of students' risk with sensitivity, ensuring that identification is used to prompt action and support, not to give labels that carry stigma.
- ***Solicit feedback from stakeholders.*** Feedback from administrators, teachers, staff, students, and parents can help the team uncover underlying causes for students displaying indicators of risk. This information may help the EWS team match students to appropriate interventions and supports.
- ***Monitor progress.*** The EWS team monitors progress as it strives to improve educational outcomes for students during a single school year and over the course of multiple school years. The team should be responsible for presenting progress reports to key stakeholders, including principals, staff, district leadership, local board of education, and parents.

### **ANTICIPATED OUTCOMES OF STEP 1**

1. The establishment of an EWS team composed of staff who have a diverse knowledge of students in the school and who understand their roles and are trained in the use of the tool and the EWS process
2. The establishment of a routine time and space for EWS meetings
3. The identification of one or more individuals responsible for importing or entering data into the tool on a routine basis

### **DISTRICT ROLE IN STEP 1**

District representation and participation in EWS teams is essential, and each high school should have its own EWS team. Ideally, a district representative should participate on each school-based EWS team. However, the number and composition of EWS teams in a district may depend on the size of the district. Large districts with many high schools may have one school-based team at each high school plus another district-level team with both school and district representation. Smaller districts may have one school-based team in each high school with both school and district representation.

The role of the district is to identify systemwide concerns and develop and recommend districtwide changes that address such concerns. District administrators also play a key role in communicating the importance of the EWS within and across schools, through engagement, professional development, and monitoring of school-level efforts, to achieve the following expected outcomes:

- *Engaging in school-level meetings or routinely communicating with EWS teams*, which increases attention to the EWS efforts and signifies the importance of the EWS work
- *Providing professional development to team members for using the tool and working with the school throughout the EWS process*, which enhances the work of the team and decreases the variation in the quality of the EWS team's work
- *Monitoring school efforts to use EWS throughout the school year and over the course of multiple school years to ensure that schools are improving outcomes for students*, which allows the identification of promising practices and areas of need in the district as a whole

In large districts, it may be practical to have a district EWS team in addition to the school-level teams. A district team should include at least one key representative from each school-level team. A district team may meet less frequently than school-based teams (e.g., two to four times a year) to discuss persistent problems and challenges and resources and strategies for supporting students, as well as systemic, organization, and policy changes that may be needed. The school-level representatives can help the district team develop new districtwide strategies for at-risk students (e.g., new behavioral management approaches or training for teachers and students, increased professional development in adolescent literacy).

## **GUIDING QUESTIONS FOR STEP 1**

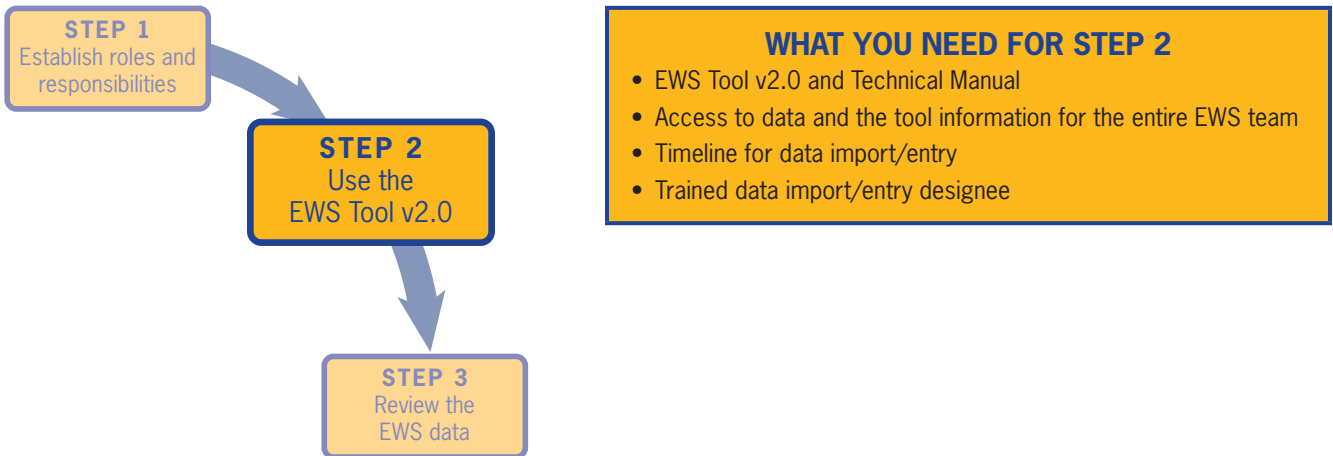
### **Short-Term Questions**

1. Who needs to be represented on the EWS team (e.g., district administrators, counselors, teachers) and what types of knowledge do team members need to have (e.g., knowledge of student needs, diverse student populations, data analysis strategies, existing dropout prevention programs)?
2. When will data be imported or entered into the EWS Tool v2.0 and who will be responsible for this process?
3. How frequently and on what specific dates should the EWS team meet?
4. What type of professional development is needed to train and support the school- and district-level team(s)?
5. What additional resources are needed to support the team?

### **Longer-Term Questions**

1. Who will continue to be part of the EWS team the following year?
2. What are the most significant challenges facing the team?
3. What are the most significant achievements of the team?
4. What, if any, additional resources are needed?
5. What types of professional development for team members should be planned to continue to build the capacity of EWS teams and other key and support staff?

## STEP 2—Use the EWS Tool v2.0



### DESCRIPTION OF STEP 2

A robust early warning system uses readily available student data and validated indicators of risk to identify students who are at risk of dropping out of school so that they can be matched with appropriate supports and interventions. Districts or schools may develop their own early warning systems or may access the EWS Tool v2.0, a free downloadable program based in Microsoft Excel. The EWS Tool v2.0 identifies students who are displaying risk indicators and allows users to closely track students' participation in assigned interventions and to monitor students' responses to those interventions.

The EWS Tool v2.0 uses information about student attendance, course failures, grade point average (GPA), and credits earned to identify, or flag, students as at risk for dropping out. The flags are based on indicators that are grounded in previous research on the predictors of dropout and graduation, in particular by the Consortium on Chicago School Research in work conducted in the Chicago Public Schools,<sup>3</sup> and by Johns Hopkins University in work conducted in Philadelphia.<sup>4</sup>

Table 2 provides a summary of the risk indicators in the tool. As shown in Table 1 on page 3, the EWS Tool v2.0 is designed to allow users to identify at-risk students based on a pre-high school risk indicator and high school risk indicators that are monitored throughout the year and at the end of the year. A pre-high school indicator that is locally defined and validated may be integrated into the tool. However, the tool is designed to primarily monitor students while they are in high school and will still operate if a pre-high school indicator is not available. The high school indicators use information about attendance (absence rates) and course performance (course failures, GPA) to flag students who are at-risk over the course of the school year: after the first 20 or 30 days of school, after each grading period, and at the end of the year. Also at the end of the year the tool uses information about course performance in core academic courses and annual credit accumulation to automatically calculate the Consortium on Chicago School Research's "on-track indicator" (defined in Table 1 on page 3). Called the "CCSR End of Year Indicator" in the EWS Tool v2.0, this indicator flags students who are on- and off-track for graduation and, along with the other end-of-year risk indicators based on annual attendance and overall course performance, allows schools to plan support for at-risk students before the start of the next school year.<sup>5</sup>

**Table 2. Summary of Risk Indicators, Timeframes, and Risk Indicator Thresholds in the National High School Center's EWS Tool v2.0**

Risk Indicator	Timeframe	Risk Indicator Threshold (Flagged)
Pre-High School Indicators	Prior to the start of school	Exhibited locally validated indicators of risk
Attendance	First 20 (or 30) days, end of each grading period, end of year	Missed 10% or more of instructional time (absences)
Course Failures	Per grading period (e.g., semester)	Failed one or more semester courses (any subject)
GPA	Per grading period (e.g., semester)	Achieved 2.0 or lower (on a 4-point scale)
CCSR End of Year ("On-track") Indicator	End of year	Failed two or more semester core courses, or accumulated fewer credits than the number required for promotion to the next grade

The EWS Tool v2.0 allows users throughout the school year (as early as the first 20 or 30 days of school and after every grading period thereafter) to identify and monitor students who show early warning signs through one or more of these indicators that they are at risk for dropping out of high school. The student-level data on attendance, course failures, GPA, and credit accumulation may be imported or entered into the Excel-based tool. Once these data are in the tool, the tool automatically flags students as "at risk" on the basis of the indicators that are predictive of whether students will graduate or drop out.

The EWS Tool v2.0 has many functions to facilitate data-driven decision making. These functions allow users to do the following:

- Customize the tool settings to reflect the local context (e.g., number of grading periods, GPA scale, number of credits required for promotion to the next grade)
- Integrate locally validated pre-high school (middle school) indicators to identify students who may need support as they transition into high school
- Import student-level data from existing data systems
- Produce reports including student- and school-level data summaries (both pre-programmed and custom)
- Assign and monitor student interventions over time
- Modify risk indicator thresholds after they are locally validated

The tool requires users to complete two key tasks. First, the tool must be regularly maintained by ensuring that the data in the tool are up to date. Second, information produced by the tool (e.g., lists of flagged students, summary reports) must be regularly provided to the EWS team so that the team can make informed decisions about students while maintaining student confidentiality.

To accomplish these tasks, each EWS team needs (1) access to the EWS Tool v2.0 or the generated reports; (2) one or more trained staff designated to import or enter information into the EWS Tool v2.0 and navigate its screens and features; (3) a timeline for ensuring that data are imported or entered and reviewed in a timely manner; and (4) a plan to develop reports and share information with multiple stakeholder groups inside and outside the school (e.g., other teachers, school or district leadership, local school boards, parents).

Although it is important for all team members to understand how the tool works and what the indicators mean, as noted in Step 1, only one (or more) specific individuals should take responsibility for importing or entering data into the tool. This will ensure that the data in the tool are current and that the team is able to access the appropriate student- and school-level reports on the basis of the needs and priorities of the EWS team. For example, if the EWS team is meeting after the first month of

school, the most current attendance data should be entered into the tool and a report that identifies students flagged for missing too many days during the first month of school should be ready to be shared with EWS team members.

## ANTICIPATED OUTCOMES OF STEP 2

1. An understanding of the basic features of the EWS Tool v2.0 by all team members
2. A fully populated tool with up-to-date information that is based on regular import or entry according to the established schedule

## DISTRICT ROLE IN STEP 2

The district can support the use of the EWS Tool v2.0 by doing the following:

- Providing professional development (either directly or through a third party) to team members in using the EWS Tool v2.0
- Working with the school-based teams on using the EWS Tool v2.0 to achieve consistency across schools and to raise the quality of the EWS teams' work
- Aligning the district data systems and variables with the EWS Tool v2.0 data variables to streamline the efforts of the school EWS team, which will allow team members to focus on supporting students rather than manage data or have to double-enter information

## GUIDING QUESTIONS FOR STEP 2

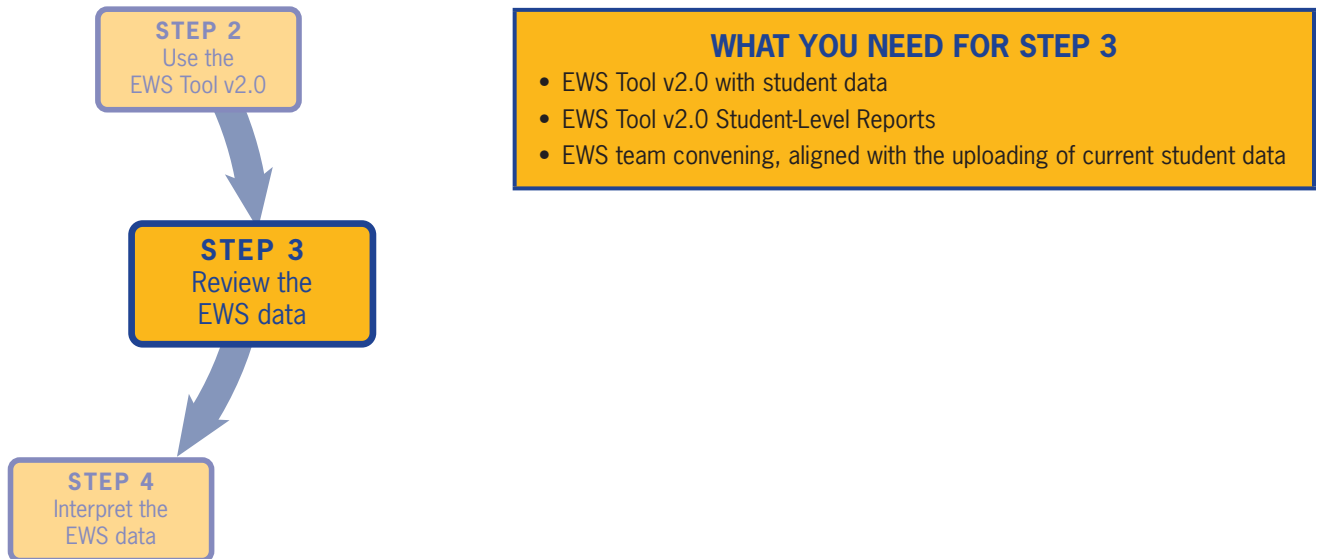
### Short-Term Questions

1. Who will be responsible for the data import or entry into the EWS Tool v2.0?
2. What data needed for the tool exist in other databases? How will the EWS team get access to those databases?
3. Who will develop reports for the EWS team?
4. How frequently will EWS data be monitored?
5. Who will provide reports to other stakeholders?
6. With whom will data from the tool be shared? How will student confidentiality be protected, as required by district policies?

### Longer-Term Questions

1. Which types of reports from the tool are most useful for informing school and district policy decisions?
2. How can the data entry and import process be streamlined or connected to existing data systems?
3. How can data from multiple years of the tool be used to validate local risk indicators, evaluate the impact of existing interventions, identify persistent school- or district-level challenges, and so on?

## STEP 3—Review the EWS Data



### DESCRIPTION OF STEP 3

In Step 3, EWS data are reviewed to identify students at risk for dropping out and to understand patterns in student engagement and academic performance. This is a critical step when using any type of early warning data, although the focus here is on information and reports that are in the EWS Tool v2.0.

The EWS Tool v2.0 yields a lot of information. Step 3 guides users to break down the information into manageable pieces that can be sorted, organized, and prioritized so that the team can take action. Arranging the data in manageable ways allows team members to identify which students show symptoms of risk and to develop questions that may lead the EWS team to further investigate the underlying causes for students' symptoms of risk, which will occur in Step 4.

To review EWS data, team members begin by examining which individual students are and are not flagged for attendance and course performance indicators of risk.<sup>6</sup> On the basis of this initial review of the data, the team strategizes ways to prioritize student needs.

The EWS team can then organize and sort at-risk students into groups that are based on the indicators on which they are flagged (e.g., flagged for attendance, flagged for course performance, flagged for both). The EWS Tool v2.0 provides student-level and school-level reports that the team can then review to better understand patterns and begin to consider the allocation of dropout prevention resources to flagged students. These reports allow the team to review summary information on the number and percentage of students in the school who are flagged (for any reason) and who are flagged for particular indicators.<sup>7</sup>

Figures 2 and 3 provide examples of ways to review EWS data. Figure 3 shows a way to sort students who are flagged after the first semester of school, by indicator of risk. In this example, the team could discuss the individual students who are flagged for attendance, flagged for course performance, or flagged for both.

Figure 2. Student-Level Report: Flagged Student Report (First Semester)

**Student Level Report** MORE INFO

Time frame: Semester 1 Intervention: N/A

Report: Flagged Student Report  
 Date: August 16, 2010  
 Time frame: Semester 1

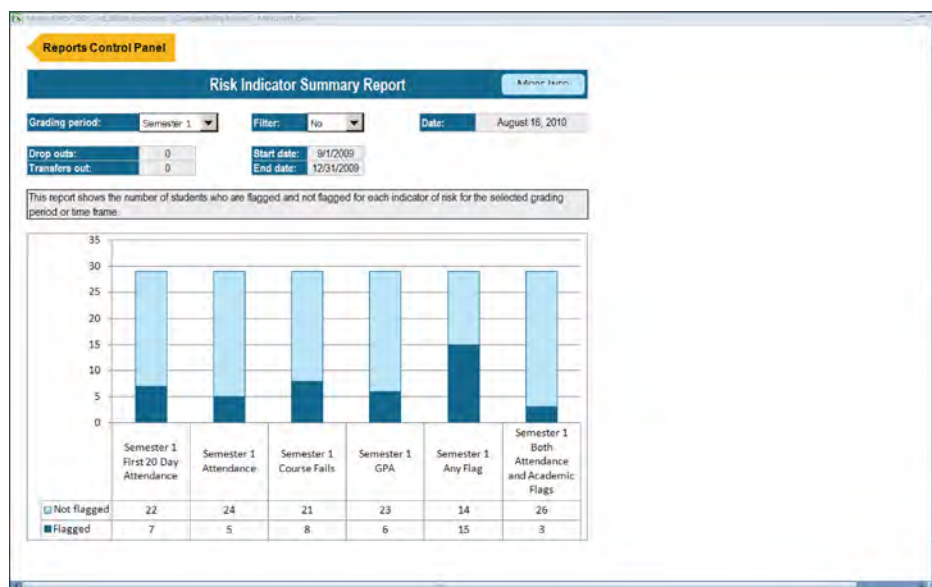
Flagged students: 15  
 Total students: 29  
 % flagged: 52%

This report shows a list of students who are flagged for any indicator of risk and for which indicators they are flagged, for the selected grading period or time frame.

Student ID	First Name	Last Name	Pre-HS Indicator	Semester 1 First 20 Day Attendance	Semester 1 Attendance	Semester 1 Course Fails	Semester 1 GPA
100	Chad	Barna	Yes	Yes	No	No	No
101	Joseph	Nelson	No	No	Yes	No	No
102	Lauren	Kelly	No	No	No	Yes	Yes
103	Greta	Adams	No	Yes	Yes	Yes	Yes
104	Mimi	Cao	Yes	Yes	No	No	Yes
105	Jennifer	Dunn	Yes	Yes	No	No	No
106	Kimberly	Eaton	Yes	No	Yes	No	No
107	Sharon	Fanning	Yes	No	No	Yes	Yes
108	Ginger	Galls	Yes	Yes	No	No	No
115	Nicole	Nash	No	No	No	Yes	No
116	Heidi	Olson	Yes	Yes	Yes	No	No
119	Jessica	Stevens	No	No	No	Yes	Yes
123	Curts	Wells	Yes	Yes	Yes	Yes	Yes
126	Eva	Zimmer	Yes	No	No	Yes	No
128	Sarup	Scala	No	No	No	Yes	No

Figure 3 shows a school-level summary of the students who are flagged for indicators of risk during the first semester. This summary allows the team to get an overall sense of the magnitude of the numbers of students displaying each type of risk indicator.

Figure 3. School-Level Report: Flagged Student Report (First Semester)



It is important to acknowledge that in some schools, a long list of students may be flagged for either attendance or course performance. In these schools, the EWS team must decide how best to allocate time to discuss each student.

### ANTICIPATED OUTCOMES OF STEP 3

1. Identification of individual students who show signs of risk for dropping out of high school
2. An understanding of patterns across students and over time that allow the EWS team to begin to consider the allocation of dropout prevention resources to flagged students
3. *In preparation for Step 4:* Identification of the type of additional information that will be needed to better understand possible reasons specific students were flagged for particular indicators
4. *In preparation for Step 4:* Assignment of responsibilities for gathering the additional information and data regarding specific students and student characteristics

### DISTRICT ROLE IN STEP 3

Information from the EWS Tool v2.0 has immediate implications for staff and students in the school; however, at the district level, there is an opportunity to examine these data in terms of a whole school or the whole district. For example, are students who are off track within the first semester of high school coming from a particular middle school or set of middle schools? The information from the EWS Tool v2.0 can illuminate trends in students' indicators of risk for further exploration and may influence how resources are allocated or policies and strategies are implemented to focus on issues that are particular to students within the district.

### GUIDING QUESTIONS FOR STEP 3

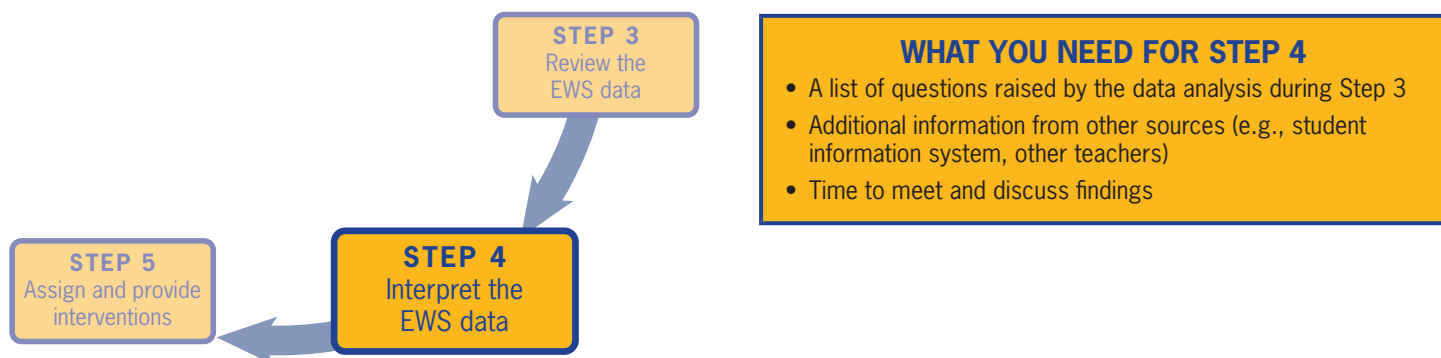
#### Short-Term Questions

1. Which students are at risk for dropping out? For which indicators are they flagged?
2. What are the most prevalent indicators or symptoms among the students who are identified as off track for graduation?
3. Are there patterns among the students who are flagged for any indicator(s) of risk?
  - Were students who are currently flagged in high school also flagged for the pre-high school indicator on the basis of middle school information (if available)?
  - Are students who are flagged for attendance indicators also flagged for course performance? Do some students show risk because of absences? Do other students show risk because of poor course performance?<sup>8</sup>
  - Do students who are flagged for risk early in the school year continue to be flagged later in the year? For the same reasons or different reasons?
  - What are the student demographic characteristics (e.g., disability, disadvantaged status, English language learner status) of students who are flagged and not flagged?

#### Longer-Term Questions

1. Do students who were flagged in a previous school year continue to be flagged in the next? For the same reasons or different reasons?
2. Do the number and percentage of students who are flagged for any indicator and for each different indicator change from year to year?
3. For students who do drop out, what percentage showed one or more risk indicators early in high school? What percentage did not?

## STEP 4—Interpret the EWS Data



### DESCRIPTION OF STEP 4

It is important to acknowledge that the indicators of risk are merely signs of deeper and likely more complex problems related to student disengagement with school and academic failure. This step builds on the review of EWS data conducted in Step 3 by encouraging the team to look more closely at the characteristics of flagged students. To do this, teams must examine additional data that are not included in the EWS Tool v2.0 but are available in other information data systems or from individuals who interact with these students. For example, for students who are flagged for poor course performance, the EWS team may need an assessment of literacy problems by the students' English/language arts teachers.

The team should gather data from a variety of sources. As previously mentioned, these sources may include classroom teachers or other adults in the school who interact with flagged students. Additionally, the team should consider conducting one-on-one meetings with individual students, their parents, or both. The EWS Tool v2.0 allows users to easily produce detailed student reports that are designed expressly for this purpose. These meetings can shed light on the reasons students are displaying indicators of risk and may be opportunities to engage students and the adults who interact with them in providing additional supports.

Most important, the information gathered during Step 4 improves the team's understanding about why students are displaying indicators of risk. After gathering additional information, the team openly discusses any previously held assumptions about individual or groups of students and move them aside, in place of factual evidence of underlying causes of poor performance. It is likely that the team will come up with new ideas as the underlying cause(s) for why students show signs of risk. On the basis of these investigations, the team should be able to identify some common and individual needs among students and prepare to identify and implement appropriate intervention strategies (Step 5) and monitor students' responses to these interventions (Step 6).

### ANTICIPATED OUTCOMES FOR STEP 4

1. A better understanding of reasons individual students, as well as groups of students, may be off track for graduation
2. Consideration of new questions about underlying causes for students' off-track status, based on the review of additional information in conjunction with the EWS Tool v2.0 data
3. Identification of individual and common needs among groups of students

## **DISTRICT ROLE IN STEP 4**

Interpreting the EWS data requires access to student information beyond that housed in the EWS Tool v2.0. District administrators can support these efforts by developing policies that give EWS team members access to information so that they are able to make informed decisions about student needs. This may require earlier information including middle school grades, attendance, behavioral information, and other data that can help EWS teams better understand their flagged students.

### **GUIDING QUESTIONS FOR STEP 4**

#### **Short-Term Questions**

##### **At the Student Level**

###### *Attendance:*

1. Are there any patterns in reasons for absence among students who are flagged for attendance?
2. Is there a day or certain time of day when the student is absent? Are certain classes missed?
3. Has the student had any behavioral referrals resulting in suspension?
4. Are there other indicators of risk (cross-check with course performance flag and other information such as teacher report and achievement test scores)?
5. What other information do you need to understand the characteristics of students with attendance problems (e.g., special education status, English language learner status, prior achievement)?

###### *Academics:*

6. For a student who is flagged for failing courses, what classes did the student fail? What might be the underlying causes (e.g., low literacy skills, an unidentified or untreated learning disability) for the low performance?
7. In which class(es) did the student perform well?
8. Is the student engaged in school (cross-check with attendance flag and other information such as teacher and counselor reports)?
9. What other information do you need to understand the characteristics of students with course failures and those who are flagged for the CCSR End of Year Indicator (e.g., special education status, English language learner status, prior achievement)?
10. In which classes or types of classes are flagged students enrolled (e.g., remedial reading or math courses)? Is it possible to group students by common needs (e.g., improving literacy) in the presence of common indicators or symptoms (e.g., failing English language arts)?

###### *Any Flag:*

11. How has the additional information helped answer the questions raised in Step 3 about individual or groups of students? Do new questions arise during this analysis? Does the additional information change how students are grouped or what patterns are evident in the data?
12. What does the team believe are the underlying causes for disengagement or academic failure among the flagged students?
13. What are the most prominent needs that are based on your analysis of the data? At the school level? District? How do you prioritize these needs?

*continued*

## GUIDING QUESTIONS FOR STEP 4

### Short-Term Questions

#### **At the Student Level**

*Any Flag: (continued)*

14. Can more information be gathered in a non-threatening manner from students about the reasons they are exhibiting behaviors causing them to be off track for graduation (e.g., students find classes disengaging; students have responsibilities at home causing them to be absent)?

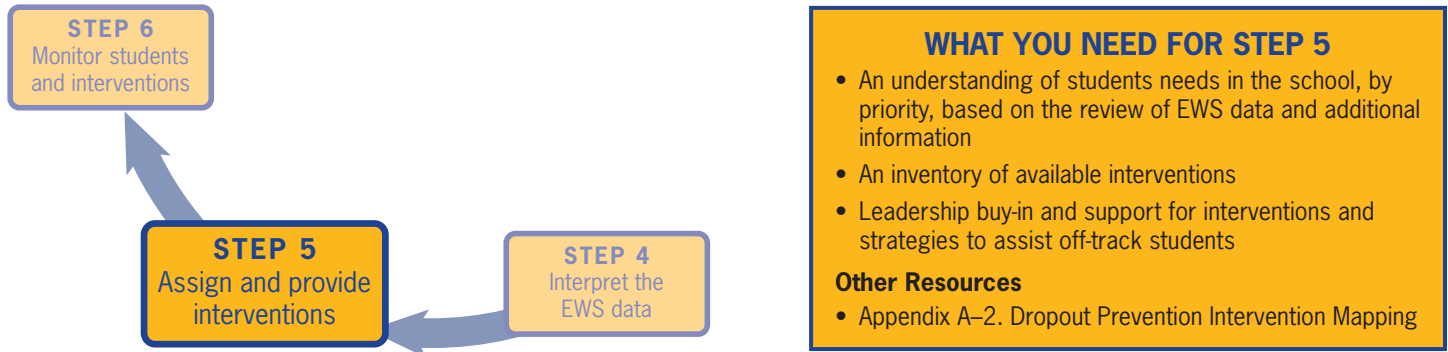
#### **At the School Level**

15. What are the profiles of students being flagged and for what? Are there patterns? How might the school serve these students better?
16. How might school attendance policies be affecting students who are flagged (e.g., consequences come along with a high number of absences)? Are attendance policies at the school causing students to automatically fail a course with a certain number of absences?
17. Are students failing particular courses (e.g., Algebra I), grade levels (e.g., ninth grade), or both? What changes could be made to improve outcomes for students in these course(s) or grade(s)?
18. How might the grading policy at the school be related to student failure rates?
19. Based on your analyses, is there anyone who is not currently on the EWS team who needs to be at the table to discuss these students (e.g., previous teachers, parents, guidance counselors, curriculum and instruction personnel)?

### Longer-Term Questions

1. What additional stakeholders should be included in discussions (e.g., community members, law enforcement representatives, court representatives, human services representatives, business representatives, local policymakers, parents, teachers, students, guidance counselors, central office staff) regarding how to systematically address the prevalence of risk factors displayed by students in the school? How will they be engaged? How will buy-in be promoted? What results can each audience achieve?
2. What additional data are important for identifying underlying causes? What further information is necessary to get an even better picture? What types of information were difficult to obtain? How could that information be made more accessible?
3. For students who do drop out, what were the reasons or underlying causes? Does the district have the capacity and resources needed to locate and survey or interview some of these students?

## STEP 5—Assign and Provide Interventions



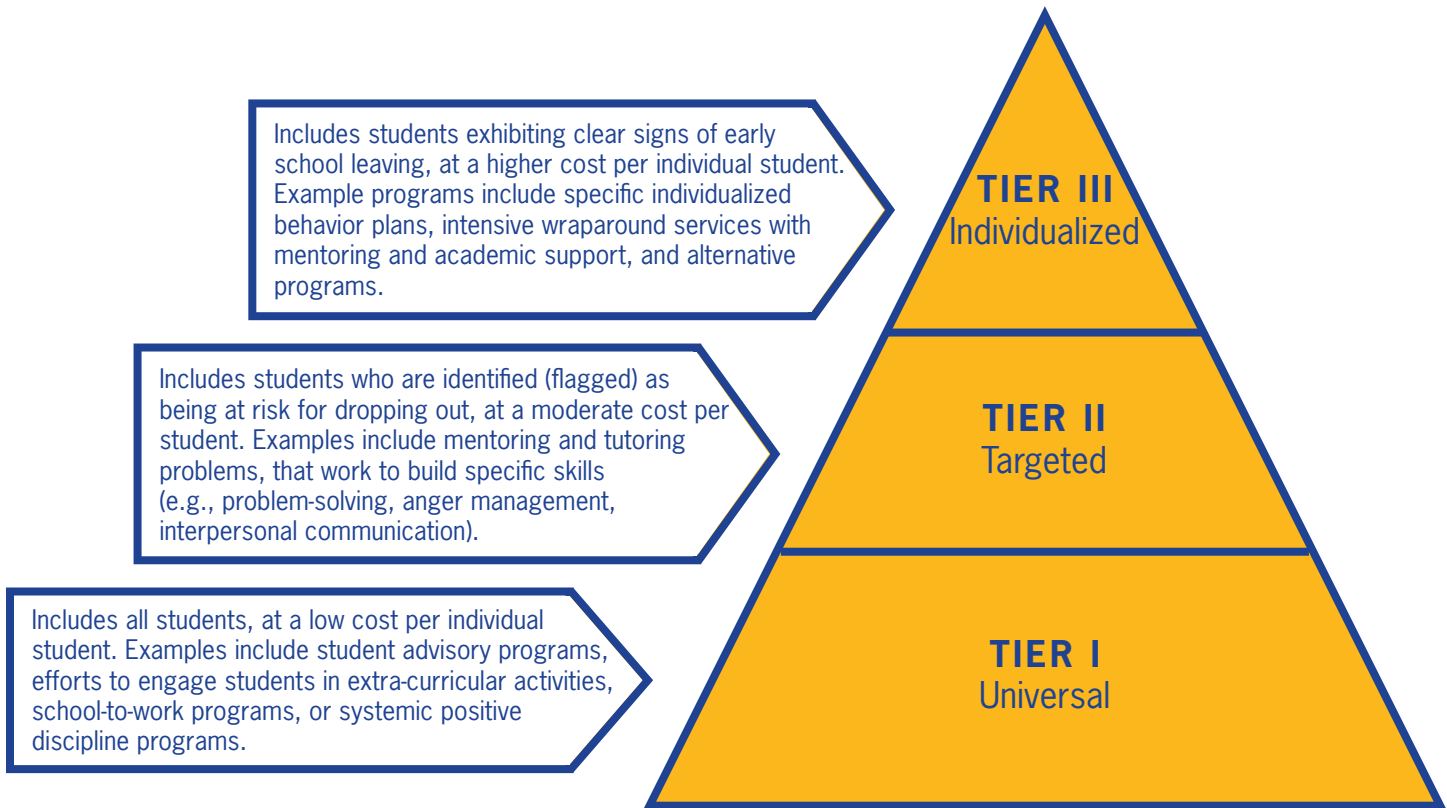
### DESCRIPTION OF STEP 5

This section includes information about making informed decisions about the allocation of available resources and strategies to support students identified as at risk for dropping out of high school. This step provides guidance on ways to systemically provide support for identified students, using a tiered approach.

During Step 5, the EWS team matches individual students to specific interventions after having gathered information about (1) potential root causes for individual flagged students and (2) the available dropout prevention and academic and behavioral support programs in the school, district, and community.

In many schools and districts, dropout prevention resources and interventions are available but not systematically applied, and their use is not well coordinated. To introduce a more systemic approach, schools and districts are increasingly organizing specific strategies or programs into tiers that are based on the intensity of the interventions. Generally, the models have a two- or three-tiered intervention system in which Tier I interventions are applied to all students in the school, Tier II interventions are moderately intensive and applied to small groups of students with common needs (sometimes individual students), and Tier III interventions are the most intensive and are provided to individual students with the highest level of need. Figure 5 shows a graphical depiction of an example three-tiered model. Such a model can be used for instructional and behavioral interventions, as well as for dropout prevention interventions, which are the focus in the next sections.

Figure 5. Example Tiered Approach to Dropout Prevention



Note: Adapted from the New Hampshire Department of Education's Apex II (Achievement in Dropout Prevention and Excellence) model (see National High School Center, 2007) and the Minnesota Department of Education's three-tiered model (Lehr, 2006).

When adopting or adapting such a model for dropout prevention, a district or school may consider the following:

- Communicating the purpose of the tiered model for dropout prevention explicitly, to achieve buy-in at multiple levels from state and local education agencies to families and students.
- Clearly defining the tiers within the model so they are easily understood by all stakeholders, including administrators, educators, families, school support staff, and students.
- Establishing a protocol that enables students to move through the tiers seamlessly and efficiently as needs are identified and then change. Again, the identification of those needs is based on the understanding of EWS data gathered through initial screening and continual progress monitoring.

The EWS Tool v2.0 is expressly designed to monitor and adjust students' assignments to interventions and movement across tiers. In general, the EWS Tool v2.0 assumes that in schools using a tiered approach, all students have access to Tier I interventions. Flagged students are eligible for Tier II or Tier III interventions, or both, based on the assessment of the EWS team.

These features will help schools and districts coordinate services and closely track the participation of individual students in intervention programs and their response to those interventions. It is important to note that schools and districts that are not using a tiered model for dropout prevention can still make good use of the EWS Tool v2.0's intervention monitoring features.

To match students to interventions, the team will need to understand the interventions that are available and the needs the interventions address. Creating an inventory of existing interventions available to students in the school, district, and community will provide the team with a resource on which to base decisions about matching students to specific interventions. When conducting an inventory of existing interventions and student supports available in the district and school, the team should consider the following important questions:

- What are the features of the available interventions and supports? What strategies do they include? Which focus on student engagement and attendance problems? Which focus on academic problems?
- What other needs do the interventions intend to address? What are the characteristics of the students who seem best suited to these interventions?
- Are the interventions known to be effective? What is the evidence? What additional evidence is needed?
- Are any of the students who have been identified as at risk participating in these interventions? For how long have these students been participating? What is the intensity of the intervention? Is the intervention being implemented as designed (fidelity of implementation)? What indicators of success, or lack of success, are documented in student records?

*Appendix A–2, Dropout Prevention Intervention Mapping*, is an example of a resource that supports the development of an inventory of interventions.

Next, the team should review the information about the needs of students, based on the team's work in Steps 3 and 4, to match students to appropriate interventions. The EWS Tool v2.0 facilitates this process. The tool houses information about the available interventions (from the inventory). Within the tool, users can document the specific programs to which individual students have been assigned (by date). Once students are assigned to one or more interventions, the team can then monitor students' progress in these interventions and adjust the program of support on the basis of this information (see Step 6). Additionally, during the matching process, the team may identify gaps in the available interventions for specific group or individual student needs. This may be an opportunity to discuss these needs with school and district leaders.

This process relies heavily on data collected during Steps 3 and 4 to inform action, but team members are ultimately charged with using their judgment to recommend specific student interventions. To ensure that each placement is appropriate and effective, the team will continually monitor individual student response to the intervention (Step 6) and, when needed, revise student placement.

#### **ANTICIPATED OUTCOMES FOR STEP 5**

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1. A compiled inventory of interventions available to students in the school
2. Identification of gaps in the available interventions for students, and recommendations for new intervention strategies
3. Assignment of flagged students to interventions on the basis of the student needs identified in Steps 3 and 4 (documented for each individual student in the EWS Tool v2.0)
4. Recommendations for schoolwide prevention strategies aimed at addressing the most common student need identified in Steps 3 and 4

## DISTRICT ROLE IN STEP 5

The perspective of the district allows longer term solutions and strategies across schools. The district can support EWS teams in identifying appropriate interventions by doing the following:

- Identifying common needs across multiple schools
- Identifying districtwide solutions for common needs among schools
- Allocating resources on the basis of identified needs
- Supporting pre-high school interventions when possible to improve student readiness for high school (e.g., elementary and middle-grade interventions, summer bridge programs)

Districts also have a role to play in facilitating the use of promising prevention and intervention programs. Through work with and on EWS teams, district personnel can play a key role in identifying promising student interventions and sharing effective interventions among schools.

### GUIDING QUESTIONS FOR STEP 5

#### Short-Term Questions

1. What interventions are available to support students' needs?
2. What interventions are currently implemented in the school and district? How successful do they seem to be for keeping students in school? What type of ongoing support is provided to implement interventions with fidelity?
3. What structures (as opposed to specific programs) currently exist to support students who are off track for graduation (e.g., flexible scheduling, credit recovery, behavior support, attendance and truancy interventions)?
4. Do trends in the data identify the immediate need for particular types of interventions (e.g., attendance monitors, graduation coaches, professional development for teachers on instructional strategies, ninth-grade transition supports, opportunities for extended learning beyond the school day)?
5. If a tiered model is not already in place, is it possible to provide supports that are tiered by intensity on the basis of student need? Are there other ways to coordinate services and prioritize the allocation of resources?
6. Do the demographic characteristics (e.g., disability, economically disadvantaged status, English language learner status) of the students identified as at risk inform intervention decisions? Should they?

#### Longer-Term Questions

1. Which interventions appear to be most successful at helping flagged students get back on track?
2. Do trends in the data consistently identify the need for similar types of interventions?
3. How will you communicate the results of this work to critical stakeholders (e.g., parents and students, teachers, administrators, community, educators outside your district, state Department of Education)?
4. How will you identify promising interventions to address unmet dropout prevention needs (e.g., attend conferences, purchase intervention, ask/visit other schools/ districts, study teams, review literature, seek help from regional or state agencies)?

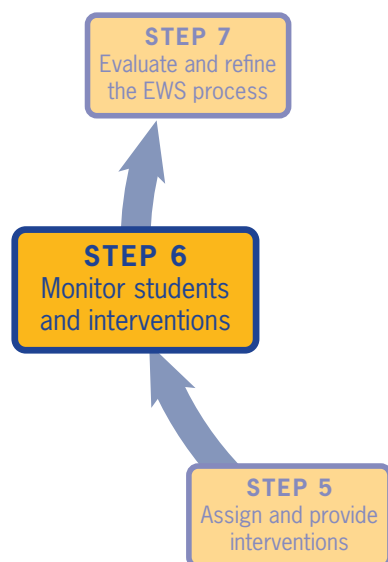
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## GUIDING QUESTIONS FOR STEP 5

### Longer-Term Questions (continued)

5. What resources (e.g., time, materials, personnel, funding) are necessary to support the critical issue(s)? What resources are available to support the identified students? If not sufficient, how will you obtain additional resources (e.g., cost-sharing across programs, grants, other funding sources)? How will the resources be distributed among groups and individual students on the basis of their needs?
  - How will school/district staff be included as part of these efforts? How will this information be communicated to them? How will they be involved in decision making, implementation, and monitoring?
  - How will students and parents be included as part of these efforts? How will information be communicated to them?
6. What policies need to be in place to improve the implementation of dropout prevention strategies?
7. Are resources sufficient to implement dropout prevention interventions, given that you now have an efficient process for identifying needs? If not, how might additional resources be identified for both the short term and the long term?
8. Are organizational or structural changes needed in the school or district to support students? How will the successes of the program and individual students be celebrated?

## STEP 6—Monitor Students and Interventions



### WHAT YOU NEED FOR STEP 6

- A list of students in interventions
- Time to discuss student progress in interventions

#### Other Resources

- Appendix A–2. Dropout Prevention Intervention Mapping

### DESCRIPTION OF STEP 6

This section includes information about monitoring flagged students and improving both individual student supports and the system of interventions available. This step provides guidance on how to monitor students in interventions by examining whether they begin to get back on track (i.e., no longer display indicators of risk) or not. In this step, EWS teams use the progress monitoring information to evaluate the impact of interventions on individual students and on students with common needs.

#### Monitoring Student Progress and Intervention Resources

- **Monitor students who are participating in interventions.** This monitoring should be done as part of the EWS team's routine review of EWS data (Step 3) and incorporated as a regular item on the team's agenda.<sup>9</sup> Specifically, students who were previously flagged and assigned to one or more interventions should be monitored closely to see whether they are again flagged and for which reasons. For example, students flagged for attendance problems who were assigned to a program with attendance monitoring should be examined to see whether their attendance rate improved or not.
- **Identify student needs that are not being met.** Many students who are receiving supports may continue to show signs that they are at risk for dropping out. It is possible that their needs are not being addressed by the intervention because it is not effective, because the students are not adequately participating to benefit from the interventions, or additional needs may have emerged that are not addressed by the assigned intervention. Again, regular monitoring allows these issues to be addressed quickly.
- **Identify new interventions to meet existing student needs.** The EWS team may need to identify new interventions that are not currently available to meet the needs of these students. First, the team must identify the level of need (e.g., the number of students who could be served). Then, the team must conduct a search and develop a list of potential interventions and strategies that may serve the need, with the associated costs of implementing the intervention or strategy (e.g., resources, funding, staff time). After the team shares the level of need and potential solutions and shares the information with leadership and staff, appropriate intervention(s) can be implemented.

- *Examine the effectiveness of the interventions.* In addition to enabling users to track the progress of individual students, the EWS Tool v2.0 allows users to examine intervention programs in terms of whether participating students are able to get back on track or not. Over time, this process will improve the team's understanding of which interventions are best at addressing specific student needs and enable the team to strengthen the process of matching students to interventions. Although tracking the impact of interventions will help the school and district identify interventions that do and do not work for their students, it is also important to note that many programs will not have strong effects right away.
- *Communicate with families and solicit their involvement in the process.* As noted as part of Step 3, both students and their families should be informed about students' risk status for dropping out of high school throughout the school year. Families should be informed when students appear to make improvements, and they should also be informed when there is lack of improvement or further decline.

#### ANTICIPATED OUTCOMES FOR STEP 6

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1. Knowledge about individual student progress over time and specific responses to assigned interventions that allows the EWS team to make decisions about continuing, reassigning, or terminating interventions for flagged students
2. Identification of gaps in the available interventions for students, recommendations for new intervention strategies, and prioritization of new interventions that are based on EWS data
3. Knowledge about the general effectiveness of interventions, based on the monitoring of students participating in each program
4. Information sharing with appropriate stakeholders about students' needs, impact of existing interventions, and, if there is one, the need for additional interventions

#### DISTRICT ROLE IN STEP 6

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Monitoring individual students occurs at the school level, but the district can play a key role in enhancing the availability of appropriate student interventions by monitoring trends among students within a given year and over time. Additionally, districts can support schools in examining the effectiveness of interventions by examining outcomes of participating students across schools and over time. Further, districts can allocate resources (e.g., staff, funds) on the basis of student and school needs.

## GUIDING QUESTIONS FOR STEP 6

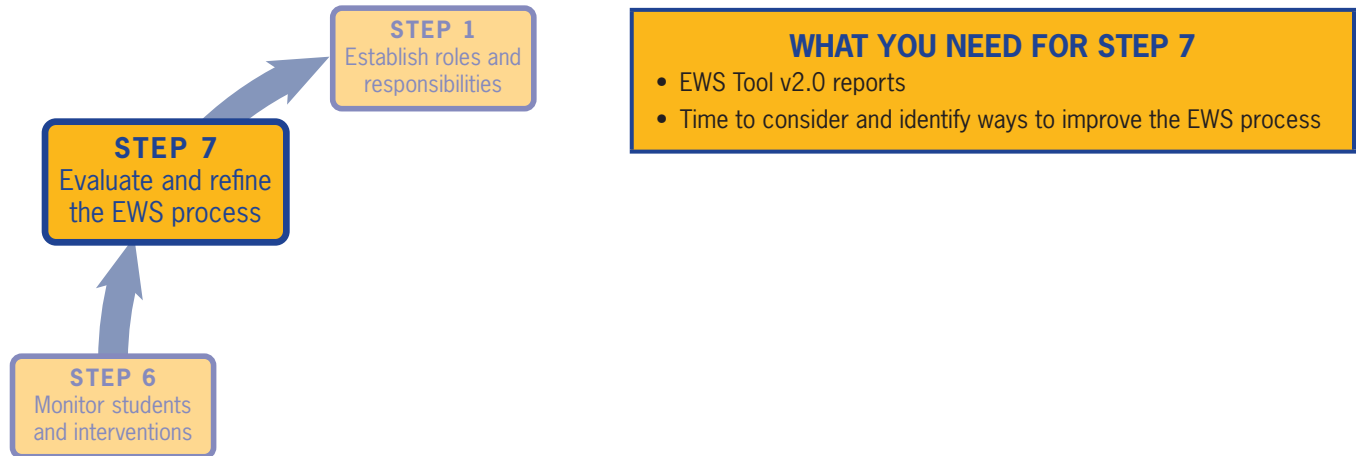
### Short-Term Questions

1. Are students who are participating in interventions showing improvement? What evidence are you using (e.g., indicators of risk, other)? Do these students need to continue participating in the intervention to maintain improved outcomes?
2. Are students who are participating in interventions continuing to display indicators of risk?
  - Is the intervention inadequately supporting an individual student or a group of students?
  - Are there problems with the intervention or how it is being implemented, or is it not addressing the particular needs of students?
  - Does more information about the needs of the student need to be gathered (Step 4) to identify a better fit between the intervention and the student's needs (Step 5)?
3. As interventions are implemented, do new student needs arise? Has the number of students flagged for each indicator changed since new strategies have been put in place? How can interventions be modified or replaced?
4. Are resources sufficient to implement dropout prevention interventions, given that you now have an efficient process for identifying needs? If not, how might additional resources be identified for the short term?

### Longer-Term Questions

1. Over multiple years, do trends in the data consistently identify the need for similar types of interventions? Do school or district policies and strategies exist that may address these needs?
2. What interventions seem to consistently get students back on track for graduation? Which indicators provide evidence that students are back on track (e.g., increased attendance rates, improved course performance, decreased dropout rates)?
3. Over the course of several years, how effective are the existing interventions for improving outcomes for students who are assigned to them? Are some interventions better for addressing students with particular types of risk indicators or other underlying causes?
  - What interventions seem to work for which students?
  - What interventions do not seem to work for students? How might these interventions be improved? Should these interventions be eliminated?
4. How will you communicate the results of this work to critical stakeholders (e.g., parents and students, teachers, administrators, community, educators outside your district, state Department of Education)?
5. What policies need to be in place to improve the implementation of dropout prevention strategies?
6. Are resources sufficient to implement dropout prevention interventions, given that you now have an efficient process for identifying needs? If not, how might additional resources be identified for the long term?
7. Are organizational or structural changes needed in the school or district to support students?

## STEP 7—Evaluate and Refine the EWS Process



### DESCRIPTION OF STEP 7

On an annual basis (at a minimum), the EWS team should reflect on the EWS implementation process. That is, the team should discuss what has worked, what may need to be modified, and what may need to be replaced or eliminated. Each decision should be supported by data and evidence and should be documented.

In this step, the team reflects on the EWS process and identifies successes and challenges. As part of this step, the team makes recommendations for improving the process. Finally, the current EWS team plus other school and district leadership identify new EWS team members and ensures that they are trained to use the EWS Tool v2.0 and that they understand the implementation process.

Step 7 also includes an analysis of the EWS risk indicators to determine the extent to which they are accurately predicting students who are at risk of dropping out of high school. To conduct this analysis, a member of the EWS team or a designee with experience in data analysis will need access to at least four years of data for at least two classes of students who have graduated or dropped out (e.g., grades 9–12 student data for the class of 2009 and the class of 2010). The analysis will then examine the graduation outcomes of students who did and did not display the EWS risk indicators earlier in high school (or in middle school). Ideally, the indicators in the system should predict a high percentage of eventual graduates and dropouts. That is, if most of the students who dropped out would have been flagged with the EWS indicators, whereas most of the students who graduated would NOT have been flagged, the indicators have a high “hit rate.” However, if most students who would have been flagged earlier in high school went on to graduate, the system may be over-identifying students as at risk. If many students who eventually dropped out would not have been flagged using these indicators, the system may be under-identifying.

Having multiple years of data to look at these percentages is critical to testing the predictive power of the EWS indicators for the local context. If the validation analysis shows that the system is not very predictive in the local context, modification of the indicators or the thresholds/benchmarks may be warranted. For example, in some districts, flagging students who miss 20 percent of instructional time may be a more accurate indicator of risk than using the EWS Tool v2.0’s default 10 percent.<sup>10</sup>

## ANTICIPATED OUTCOMES FOR STEP 7

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1. A shared perception of the success of the EWS process and challenges with its implementation
2. Clear recommendations for improving the EWS process
3. An established EWS team for the upcoming school year, composed of members with a clear understanding of the process and their roles
4. Validated indicators that strengthen the EWS in the school and district

## DISTRICT ROLE IN STEP 7

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As part of this step, the central office should monitor the overall EWS outcomes in the district and schools. To do so, mechanisms (e.g., evaluation plans) should be in place with which districts and schools can evaluate the outcomes throughout the year and at the end of the year (including annual dropout and graduation rates). For example, a district may informally get this information by participating in the EWS team. It may more formally get this information by requiring a school to report the results of the EWS annually to the district administrators, the local school board, or both.

District administrators should participate in reflecting on and refining the EWS process. Particular issues or challenges may be more effectively resolved by district administrators than at the school level. For example, a district may decide to take responsibility for ensuring that the school-level EWS Tool v2.0 is populated with student data in a timely manner. A district team member may also be able to assist in planning for professional development opportunities for staff and teachers districtwide who need more training on the EWS process to increase the effectiveness of EWS efforts. An additional clear role of the district is to lead or facilitate the validation analysis, described as part of Step 7, to ensure that the EWS is as accurate and predictive as possible for the local context. Because the district houses student-level information across schools over multiple years, the district is well positioned to put together a database that can answer clear questions about the hit rate of each indicator.

## **GUIDING QUESTIONS FOR STEP 7**

The guiding questions for Step 7 encourage EWS teams to reflect on each of the six previous steps.

### **Short-Term Questions**

#### **STEP 1—Establish Roles and Responsibilities**

1. Who will continue to be on the EWS team? [Note: Some individuals should overlap from year to year to ensure continuity over time.] Who will leave?
2. Who else needs to be represented on the EWS team?
3. What recommendations for a new team do you have?
  - How frequently should the EWS team meet?
  - How much time in meetings and out of meetings do individual members need?
  - What resources could support the team?
4. What were the biggest challenges the team faced?
5. What were the biggest successes?
6. What made your job easier?
7. What changes could make your job even easier?
8. What advice do you have for future EWS teams?

#### **STEP 2—Use the EWS Tool v2.0**

9. How would you improve the tool and the processes for keeping the tool up to date?

#### **STEP 3—Review the EWS Data**

10. How would you improve the tool's reports and their use?

#### **STEP 4—Interpret the EWS Data**

11. What additional data were important for identifying underlying causes?
12. What advice would you give to someone who is new to analyzing the data?
13. Were there any unintended (negative or positive) consequences for students or staff because of the type of information that came from the EWS Tool v2.0? Did any helpful strategies emerge? Was any other information discovered?

#### **STEP 5—Assign and Provide Interventions**

14. What existing strategies for students who were identified as off track for graduation ensured that students got back on track or are headed in that direction?
15. Do you think that you were able to match students to appropriate interventions on the basis of your analysis of the EWS data and your interpretation techniques?

#### **STEP 6—Monitor Students and Interventions**

16. What existing strategies for students who were flagged as at risk for not graduating seemed to help students get back on track or headed in that direction?
17. Can you recommend preventative strategies to support students who may be at risk?
18. What strategies do you feel are still needed to support students as they get back on track for graduation?

*continued*

## GUIDING QUESTIONS FOR STEP 7 (continued)

### Longer-Term Questions

1. Are there any policies, organizational systems, or educational approaches at the school and district levels to facilitate more-effective dropout prevention?
2. By looking at multiple years of data for the same class(es) or cohort(s) of students over time, how does the school or district validate the EWS indicators of risk?
  - How many or what percentage of students who were NOT flagged wound up not graduating with their cohort or dropping out?
  - How many or what percentage of students who WERE flagged did, in fact, graduate on time?<sup>11</sup>
  - Are the indicator thresholds appropriate? Should they be adjusted?
  - If trends are apparent in the district or individual school, do the trends continue over time?
3. Do the EWS data reveal systemic problems in the district or school (e.g., risk factors that are prevalent from year to year, feeder patterns, schools with persistent problems, groups of students who are consistently identified)?

## Conclusion

The seven-step EWS implementation process provides an organizing framework for schools and districts to use in implementing an early warning system for dropout prevention. The steps guide users in examining indicator data for students who are at risk of dropping out of high school, matching them to appropriate interventions, and monitoring their progress. Each step specifies the roles for personnel at both the school level and the district level to create and maintain organized and coordinated approaches to dropout prevention. Guiding questions for each step allow users to focus on a range of short- and long-term needs, help users examine the needs of specific students, and help the EWS team identify underlying systemic school and district issues that can be improved to keep students in school. Using the framework presented serves individuals in schools and districts by guiding the development of a comprehensive and systematic dropout prevention process that can help keep students in school, support efforts to identify the most promising interventions in specific schools and districts, and, ultimately, raise graduation rates in high schools around the country.

For additional information about early warning systems and dropout prevention, please see the following National High School Center resources.

- ***Developing Early Warning Systems to Identify Potential High School Dropouts***  
([http://www.betterhighschools.org/pubs/ews\\_guide.asp](http://www.betterhighschools.org/pubs/ews_guide.asp))  
This resource 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.
- ***Approaches to Dropout Prevention: Heeding Early Warning Signs With Appropriate Interventions***  
([http://www.betterhighschools.com/docs/NHSC\\_ApproachesToDropoutPrevention.pdf](http://www.betterhighschools.com/docs/NHSC_ApproachesToDropoutPrevention.pdf))  
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.
- ***Early Warning System (EWS) Tool v2.0*** (<http://www.betterhighschools.org>)  
Developed by the National High School Center at the American Institutes for Research, the EWS Tool v2.0 is a free, downloadable, Excel-based tool designed to allow users to identify and monitor students who show early warning signs that they are at risk for dropping out of high school. This tool will assist users in monitoring the progress of students over the course of the school year (as early as the first 20 or 30 days of school and after every grading period). The tool relies on readily available student-level data (attendance, course failures, grade point average [GPA], and credit accumulation) that may be imported or entered into the Excel-based tool. As these data are entered, the tool automatically calculates indicators that are predictive of whether students will graduate or drop out.

## Endnotes

1. For access to the National High School Center's EWS Tool v2.0, go to <http://www.betterhighschools.org/ews.asp>.
2. See, for example, Bernhardt (2004) and Love (2000).
3. See Allensworth and Easton (2005, 2007).
4. See Neild and Balfanz (2006).
5. The work of Allensworth and Easton (2005, 2007), Balfanz and Herzog (2005), and Neild and Balfanz (2006) provides a strong foundation for a system based on predictive risk indicators. For a more in-depth discussion of the risk indicators, see Heppen and Therriault (2008), *Developing Early Warning Systems to Identify Potential High School Dropouts* (Early Warning Systems Guide), which was developed for use with the EWS v1.0, at <http://www.betterhighschools.org/ews.asp>.
6. Note that if the team is reviewing student-level EWS data after the first 20–30 days of school, prior to course performance data are entered, only attendance information will be available for review.
7. Instructions for generating reports in the EWS Tool v2.0 are provided in the EWS Tool v2.0 Technical Manual and within the EWS Tool v2.0, available at <http://www.betterhighschools.org/ews.asp>.
8. The attendance and course performance indicators tend to co-occur (Allensworth & Easton, 2007); however, it may be useful to confirm whether this is the case in the local context. An attendance problem may be apparent before poor course performance and if detected early could be addressed before course failures occur.
9. If possible, more-frequent monitoring of flagged students should occur, enabling the team to react in a timely manner.
10. See Heppen and Therriault (2008) and Jerald (2006) for additional resources and information on validating EWS indicators. If the indicators are not considered predictive enough, further technical assistance should be sought to use local data to refine the indicators and the thresholds for risk identification.
11. These retrospective percentages determine the hit rate of the EWS indicators.

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## **APPENDIX A: Supporting Documents**

**A-1. EWS ACTION PLANNING TOOL (STEP 1)**

**A-2. DROPOUT PREVENTION INTERVENTION MAPPING (STEP 5)**

# Appendix A-1. EWS Action Planning Tool

**Directions:** The following action planning tool can be used by a school and/or district team to begin to plan and implement an early warning system to identify students who are at risk of dropping out of high school. Use this tool to plan for implementation of the Early Warning System to guide your EWS team.

SCHOOL/DISTRICT: \_\_\_\_\_ DATE: \_\_\_\_\_

STEP	What do you have in place?	What do you need?	What are your next steps? (assign individuals to be responsible for these actions)
1—Establish Roles and Responsibilities			
2—Use the EWS Tool v2.0			
3—Review the EWS Data			
4—Interpret the EWS Data			
5—Assign and Provide Interventions			
6—Monitor Students and Interventions			
7—Evaluate and Refine the EWS Process			

## Appendix A-2: Dropout Prevention Intervention Mapping

**Directions:** List the existing dropout prevention interventions/strategies in your school or district in column 1. In columns 2 and 3, use the codes to indicate which best captures the intervention. In columns 4–16, mark an “X” in the column(s) that the intervention addresses.

[illegible]

