



# Using School-level Data to Increase Graduation Success of Students with Disabilities: Part 2 – Strategies and Interventions

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## Objectives

After this training, participants will be able to:

- Explain the difference between an indicator that predicts a student is at-risk of dropping out of high school and the cause of a student being at-risk of dropping out of high school.
- Differentiate between collecting early warning data and analyzing early warning data.
- Describe root-cause analysis and how it affects the efficacy of an early warning system.
- Consider the merits of expanding EWS practices by monitoring the fidelity of intervention implementation and making changes when needed.



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## EWS Defined

According to the National Technical Assistance Center on Transition (NTACT), “Early Warning Systems (EWS) ... are tools that analyze individual student-level data and estimate each student’s risk of dropping out of school or completing on time” (2017, p. 1).



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## The Need for EWS

- ❑ One in four public school students in the United States fails to graduate from high school.
- ❑ EWS enables educators to identify and support students to keep them on track for a timely graduation and prepared for college and career.
- ❑ The decision to dropout is not sudden, but a slow process of disengagement over time.
  - Disengaged behaviors are the most predictive of students at risk of dropping out of high school (more than race, native language, income level).



(Bruce, Bridgeland, Fox, & Balfanz, 2011)




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## Summary of Early Warning Indicators in 1001.42, (F.S.)

Early warning indicators are among information and data now required in school improvement plans (SIP):

- ❑ Early warning indicators
  - Attendance below 90%, regardless of whether absence is excused or a result of out-of-school suspension
  - One or more suspensions, whether in school or out of school
  - Course failure in English Language Arts or Mathematics
  - A Level I score on the statewide, standardized assessments in English Language Arts or Mathematics
- ❑ Intervention strategies employed by schools.
- ❑ School-based team




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## Legislation: Section 1001.42, Florida Statutes (F.S.)

Must Include Indicators Below and May Include Additional Indicators:

- ❑ Attendance below 90 percent (excused and unexcused absences).
- ❑ One or more suspensions, whether in school or out of school.
- ❑ Course failure in English Language Arts or mathematics during any grading period.
- ❑ A Level I score on the statewide, standardized assessments in English Language Arts or mathematics or, for students in kindergarten through grade 3, a substantial reading deficiency under s. 1008.25(5)(a).

Requires an EWS School-Based Team to:

- ❑ Identify and implement the EWS intervention strategies.
- ❑ Monitor the EWS data/outcomes.




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## Early Warning Systems (EWS)

Review Steps One to Four in EWS – The Fundamentals



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### Summary of Early Warning System Steps: The Fundamentals (Part I)



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### Summary of Early Warning System Fundamentals (Part I)

**STEP One**  
Ensure School-Level Teams Are Formed and Trained

"[EWS] teams may be established as a new team or may be integrated into existing teams (e.g., School Improvement team, Response to Intervention team, Child Study team). [EWS teams] should include a broad representation of staff within the school and, ideally, the district (e.g., principals, teachers, district administrators, specialists)" (Bowles, et al., 2010, p. 4).



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## Early Warning Systems (EWS)

STEPS Five through Eight



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## Early Warning Systems (EWS)

STEP Five: Data Interpretation



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Step 5

### Early Warning Indicators Are Symptoms, Not Causes

"Although early warning indicators alert you to a symptom of a problem, a root cause is your best hypothesis about the underlying cause (or causes) that must be addressed to solve the problem or prevent the issue from recurring" (Marken, et al., 2020, p. 26).



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**Step 5** Data Interpretation is Pivotal

Case Example: "A high school EWS team identified an unusual pattern of increased course failures for freshman biology across all teachers compared with prior years.

- To better understand what was happening, team members spoke with the biology teachers.
- They learned that there were no significant changes to the scope and sequence, curriculum, or grading of student assignments that could account for the course failures.
- After collecting additional supplemental data, the team realized that the recent change in the high school science sequence meant that some prerequisite biology standards were not taught prior to students entering biology."



Adapted from Early Warning Intervention and Monitoring System Implementation Guide (2020)  
<https://www.aisr.org/sites/default/files/EWIMS-Implementation-Guide-FINAL-July-2020.pdf>

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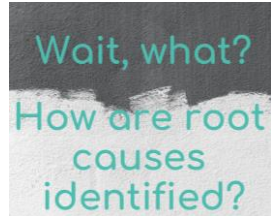
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**Step 5** Root-Cause Analysis Identifies **Why** Students are Becoming At-Risk of Dropping Out of High School

- Root-cause analysis opens a pathway to understand "why" students demonstrate indicators, or symptoms, of being at-risk of dropping out of high school.
- Data needed for root-cause analysis:
  - Traditional EWS data – Attendance, Behavior & Course performance.
  - Supplemental data – Additional data that goes beyond identifying students who are at risk of dropping out of high school and point to WHY students are at-risk of dropping out.




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**Step 5** Examine Data Sources and Surprising Rise in Biology Failures

Data Source	New Data Gathered	Result of Data
Examination of academic course data (Regular EWS data)	There were increased course failures for freshman biology across all teachers compared with prior years.	<ul style="list-style-type: none"> <li>Identification of students at risk of not graduating due to biology course failure.</li> <li>Root cause is not related to specific teachers.</li> <li>Root cause is not identified.</li> </ul>
Communication with biology teachers – Supplemental data	There were no significant changes to the course scope and sequence or curriculum.	<ul style="list-style-type: none"> <li>Root cause is not related to changes in the biology course curriculum.</li> </ul>
Investigation into the sequence of science courses leading to biology – Supplemental data	Recent changes in the science sequence omitted prerequisite biology standards that were previously taught.	<ul style="list-style-type: none"> <li>Root cause is identified.</li> </ul>

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Step 5 Supplemental Data Results

- An effective and efficient solution was adopted – Prerequisite biology standards were integrated into the biology course.
  - One year later, the data showed that biology course failures were significantly reduced.
- Ineffective and/or inefficient solutions were avoided.
  - Students could have unnecessarily been assigned to biology tutoring or another Tier 2 academic support.
  - Unnecessary Tier 2 academic support could have possibly become a standard practice.



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Step 5 Summary

- The key activities for Step 5 are as follows:
  - Interpret data to hypothesize about the root causes for the student or group of students identified.
  - Identify and gather supplemental data for students displaying symptoms of risk.
- Anticipated Outcomes for Step 5:
  - A better understanding of reasons that individual students and groups of students are being identified.
  - Identification of individual and common needs among groups of students.



Adapted from Early Warning Intervention and Monitoring System Implementation Guide (2020) <https://www.air.org/sites/default/files/EWIS-Implementation-Guide-FINAL-July-2020.pdf>

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Early Warning Systems (EWS)  
STEP 6: Match Students with Needed Interventions



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### Step 6 Broad Level Strategies Implemented Through School Policy and School Systems Change

Reviewing the grading policies and school structures that impact student success is a big-picture approach to interventions that can substantially support student success for all students, including students with disabilities.

- Consider the interventions at Tiers 1, 2 and 3 available within the school district/school
- Re-evaluate grading policies – Consider a grade floor that isn't zero.
- Implement restorative practices – Support the development of healthy relationships across all school populations.

- Support credit recovery options – Re-take a failed course through flexible options, such as online courses, hybrid courses and face-to-face courses, as well as, flexible scheduling options, such as extended school year, afterschool, summer school and traditional school hours.
- Create peer tutoring opportunities using students in honors, Advanced Placement (AP), or International Baccalaureate (IB) programs, etc.
- Master schedule changes can create space for courses that provide instructional practices that support both students in the lower quartile and students with disabilities.

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### Step 6 District-Wide Practices to Support Student Success

- Review National Collegiate Athletic Association (NCAA) Checklist/Clearinghouse for athletes: Ensure student athletes are prepared for eligibility. <https://www.ncsasports.org/ncaa-eligibility-center/checklist>
- Build bridges between middle and high school to facilitate articulation – Transition timeline legislation supports this process.
- Seek parent/family commitment to support efforts.
- Streamline process for support facilitation.
- Examine success rates of core academic courses and explore the teacher success rate.
  - What type of support do teachers need and want?




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### Step 6 Student-Focused Strategies

- Graduation Pledge + photo in cap and gown
  - With parents, guardians, family
- Reward System
- Engaging the community for mentors, especially from culturally diverse backgrounds
- Ninth grade transition program
- Graduation class pep rallies
- Self-monitoring tools
- Flexible scheduling
- Online Credit Recovery
- Having an adult involved who cares




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## Step 6 Student Intervention Examples

- Adult/peer mentor to monitor daily/weekly. Can include Check & Connect.
- Algebra/Geometry Boot Camp to support student performance on end-of-course tests.
- Conduct credit and grade check during annual IEP meetings.
- Grade forgiveness/replacement.
- On-line credit recovery for an on-time graduation.
- Provide a Graduation Checklist to all students based on Florida's graduation pathways.
- Summer school credit recovery.
- Tutoring.




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## Step 6 Develop and Communicate the Intervention Plan

Establish clear communication methods exist to keep all staff informed of the EWS team's work.

- Ensure space or availability of support for the students in the intervention selected by the EWS team.
- Ensure that the student's teachers are aware that the student is participating in the intervention (if appropriate).
- Ensure that the EWS team receives feedback from relevant staff with connections to the student.

Adapted from: Early Warning Intervention and Monitoring System Implementation Guide (2020) <https://www.air.org/sites/default/files/EWIMS-Implementation-Guide-FINAL-July-2020.pdf>




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## Early Warning Systems (EWS)

### STEP 7: Monitor Student Progress and Intervention Effectiveness




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### Step 7 Make a Progress Monitoring Plan

After the intervention has been assigned to a student, the EWS team could create a progress monitoring plan to evaluate the student's progress and the effectiveness of the intervention.

- The team will write a clear, measurable student goal that is the basis for assessing progress.
- The goal should clearly state what the intervention will accomplish. Determine how the goal will be measured and the time frame for achieving the goal.
- Check on the intervention plan with appropriate stakeholders, including students' parents/guardians.
- Monitor whether students are making progress and getting back on track.
- Determine an intervention's effectiveness and whether any change is needed.

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### Step 7 Confirm the Fidelity of Intervention Delivery

#### Elements of Fidelity

- Duration:** Is the student receiving the intervention for the correct length of time according to research? How often does the student receive the intervention? Did any factors prevent the student from receiving the intervention as intended?
- Adherence:** Is the interventionist implementing all components of the intervention, in the way intended based on research?
- Quality of Delivery:** How well is the intervention being delivered? Are good teaching practices used? Is the teacher engaged and animated in delivery?
- Program Specificity:** Is the intervention well defined? Does the intervention differ from other interventions we have in place at the school?
- Student Engagement:** Is the student engaged and involved in the intervention?

Adapted from: Early Warning Intervention and Monitoring System Implementation Guide (2020) <https://www.ais.org/sites/default/files/EVIMS-Implementation-Guide-FINAL-July-2020.pdf>

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### Step 7 Monitor Student Progress and the Intervention's Effectiveness

When monitoring student progress, the EWS team will examine students who were previously identified and assigned to an intervention to determine if they are back on track in terms of attendance, behavior and course performance. This analysis is important because a) student success depends on effective use of interventions and b) schools have finite resources and must be used as efficiently as possible. Activities include the following:

- The EWS team will evaluate student progress using the monitoring plan that was created.
- Consultation will be scheduled with the intervention stakeholders to obtain their input. This includes school personnel, as well as parents and students.
- The fidelity of intervention implementation will be determined.
- The intervention will continue to be used if the student is making progress toward the goal.
- The intervention will be considered for replacement if the student is not making progress.

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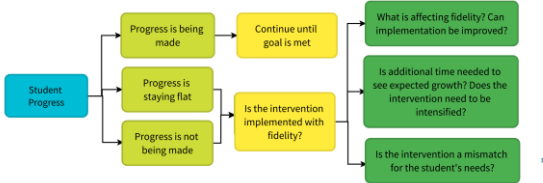
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### Progress Monitoring Decision Tree

Adapted from  
Early Warning Intervention and  
Monitoring System  
Implementation Guide  
A. Marken, J. Scalia, M. Husby-  
Slater, and G. Davis




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## Early Warning Systems (EWS)

### STEP 8: Review and Refine the EWS Process




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#### Step 8

### Review and Refine the EWS Process

Annually Review and Refine the EWS Process by completing the following:

- The EWS team will use the student and interventions monitoring data to form a list of the EWS processes' strengths and challenges.
- Write recommendations for addressing the identified challenges.
- Form the EWS team for the upcoming school year. Identify roles, responsibilities, and how the EWS team may be integrated with other school-wide teams.

Guidelines for the EWS Review and Refine Step:

- Discuss each step of your EWS and include each of the following questions during the review for each section.
  - What went well? Describe how the data supports your conclusions.
  - Which areas need to be improved or modified?
  - Discuss and record lessons learned from using your EWS in the past year.

Adapted from: Early Warning Intervention and Monitoring System Implementation Guide (2020) <https://www.ear.org/sites/default/files/EWIMS-Implementation-Guide-FINAL-july-2020.pdf>

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## EWS Resources

### Early Warning Systems in Education

<https://www.air.org/resource/launch-and-implement-early-warning-systems-education>  
American Institutes for Research (AIR) offers a complete set of services including the design and implementation of early warning systems to help states, districts and schools identify students who are at-risk of missing key educational milestones and create the conditions for students to succeed.

### Early Warning Systems in Transition Annotated Bibliography (2017)

[https://transitionta.org/system/files/bibliographies/AB\\_EWS\\_6\\_2017.pdf?file=1&type=node&id=1453](https://transitionta.org/system/files/bibliographies/AB_EWS_6_2017.pdf?file=1&type=node&id=1453)  
This annotated bibliography, developed by the National Technical Assistance Center on Transition (NTACT), provides an overview of EWS, places EWS' relevance in transition and provides an annotated bibliography categorized by study type.



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## EWS Resources

### Early Warning Systems: Designing Effective Interventions to Improve College and Career Readiness

[http://www.air.org/sites/default/files/downloads/report/Interventions\\_to\\_Improve\\_College\\_and\\_Career\\_Readiness\\_0.pdf](http://www.air.org/sites/default/files/downloads/report/Interventions_to_Improve_College_and_Career_Readiness_0.pdf)  
This brochure highlights American Institutes for Research (AIR) efforts of using EWS data as actionable steps in three stages: research, design and implementation and ongoing support.

### Attendance Works

<https://www.attendanceworks.org/resources/toolkits/for-principals-leading-attendance/creating-a-local-toolkit/>  
Attendance Works has developed a toolkit with handouts, activities and local resources that can be easily adapted to support schools and local partners reduce absenteeism.



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## EWS Resources

### College and Career Readiness and Success (CCRS) Center, Implementation of Early Warning Systems

<https://ccrscenter.org/products-resources/early-warning-systems/implementation>  
This webpage of the CCRS provides information on implementation of EWS including downloadable implementation guides specific to middle and high schools.

### High School Early Warning Intervention Monitoring System Implementation Guide (2013)

<https://www.air.org/sites/default/files/High-School-Early-Warning-Intervention-Implementation-Guide-March-2013.pdf>

### Middle Grades Early Warning Intervention Monitoring System Implementation Guide (2013)

<https://www.air.org/sites/default/files/Middle-Grades-Early-Warning-Intervention-Implementation-Guide-February-2013.pdf>



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## EWS Resources

**On Track for Success: The Use of Early Warning Indicator and Intervention Systems to Build a Grad Nation**  
[http://diplomasnow.org/wp-content/uploads/2013/06/on\\_track\\_for\\_success.pdf](http://diplomasnow.org/wp-content/uploads/2013/06/on_track_for_success.pdf)  
 This three-part manual details the purpose, design, and potential of EWS as well as lessons from the field and next steps.




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College & Career Readiness & Success Center at the American Institutes for Research. (2017). *Evidence-based practices to support college and career readiness in high school: Early warning indicators*. Retrieved from [https://ccrcenter.org/sites/default/files/EvidenceBasedPractices\\_EarlyWarningIndicators.pdf](https://ccrcenter.org/sites/default/files/EvidenceBasedPractices_EarlyWarningIndicators.pdf).

College & Career Readiness & Success Center at the American Institutes for Research. (2013). *Predictors of Postsecondary Success*. Retrieved from <http://www.ccrcenter.org/products-resources/predictors-postsecondary-success>.

Ecker-Lyster, M. (2017). *Evaluating the efficacy of an early warning system in predicting postsecondary outcomes: A path analysis*. Retrieved from <https://kuscholarworks.ku.edu/handle/1808/25959>




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## Closing Questions, Evaluations and Contact Information

Questions, concerns, or recommendations?



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Thank you for completing the evaluation!



Thank you for your attendance and participation!

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