


## Early Warning Systems- What Research and Practice Says About Indicators and Interventions

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## In-School Drivers of Student Success

- Quality of coursework-what students are asked to do cognitively
- Quality of relationships with adults in the school (what propels students to attend, behave, and try)



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## In Era When All Students Need to Graduate Prepared for College and Career

- The best teachers and the best curriculum are not enough
- Students also need to attend school regularly, focus in class, and complete their assignments
- Poverty complicates this and the challenges are significant
- Schools can and need to be organized to help enable students to attend, behave, and try



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### The Middle Grades Are Critical

- Middle Grades are where many students are put on the path to high school graduation - college and career ready - or the dropout path
- It's when students make the independent decision - is schooling for me?



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### Early Warning Systems keep students on the path to high school graduation and improve school outcomes

- Signal when students are just beginning to fall of the path to high school graduation
- Help get the right intervention to the right student at the right time
- Enable schools to maximize impact of critical resources – time, people, and funding
- Show which students need stronger adult relationships
- Enable adults to pool their knowledge, talents and time to change student behavior and solve problems



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### Core Idea of Early Warning Systems (EWS)

- To graduate college and career ready students need to successfully navigate several key transitions and acquire a set of academic behaviors-in short they need to learn how to succeed at school
- Students signal that they are on or off track towards these outcomes through their **attendance, behavior, and course performance**-the **ABC's of being on-track to graduation**



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### Core Idea of EWS cont.

- By tracking the ABC's it is possible to identify when students are beginning to fall off track, providing time to intervene and alter their trajectory through school and beyond
- Using ABC Early Indicator data it is possible to design more targeted and effective interventions at the individual, classroom, school, and even district and state levels.



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### Good Early Warning Systems Combine Accurate and Useful Indicators with Effective Interventions



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### What Do We Know about Early Warning Indicators?



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## Good Early Warning Indicators

- **Are reliable and valid**-they flag students who absent effective intervention will not have a good result
- **Are practically useful**- for example, they identify a significant number of students who absent effective intervention have high odds of dropping out
- **Are parsimonious**- each indicator adds additional and actionable information that is not provided by another indicator




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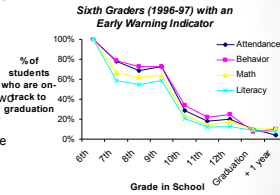
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## For Half or More of Eventual Dropouts the Path to Exiting School Without a Diploma Begins as Early as the 6<sup>th</sup> Grade

### The Primary Off-Track Indicators for Potential Dropouts:

- **Attendance** - < 85-90% school attendance
- **Behavior** - "unsatisfactory" final behavior mark in at least one class/two or more suspensions
- **Course Performance** - A final grade of "F" in Math and/or English



Sixth-grade students in high poverty environments with one or more of the indicators may have only a **15% to 25% chance of graduating** from high school on time or within one year of expected graduation




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## Three Types of Indicators

- **Off-Track Indicator**-says action needs to be taken, students with these indicators absent effective intervention do not have good results
- **Maybe Heading to Off-Track Indicator**-says should check in with student and closely monitor (e.g. trending downward in an indicator, multiple tardies, initial behavioral incident)
- **Positive Indicators**-students with these outcomes have high odds of good results




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### Findings About Individual Indicators

- **Attendance-students who are missing 10% or more of school need intervention.**
- But it is the students who miss 5 or fewer days in the year who thrive.
- Thus some attention should be paid to students who miss more than 5 days but less than 10% (i.e. check in and monitor)



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### Individual Indicators cont.

- **Behavior-students with sustained mild misbehavior fall off track in larger numbers.**
- It is important to track more minor as well as major incidents.
- Students who are suspended once need intervention to make sure they are not suspended again.



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### Individual Indicators Cont.

- **Course Performance- is as important for student's long term success as test scores.**
- Students with multiple D's and F's seldom graduate.
- Students with B or better averages succeed in college.



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### Keep it Simple to Start-Focus Indicator Systems on ABC's




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### Early Warning Indicator Data Tool

Student	Attendance				Behavior Comments		Math Grades		Literacy Grades		Assessments		
	07-08: Days Absent	08-09: Days Absent	07-08: Att.%	08-09: Att.%	Dec	Mar	Dec	Mar	Dec	Mar	Reading Grade Level	Math PSSA 2008	Literacy PSSA 2008
A	9	19	95%	84%	5	6	C	D	D	C	8	Proficient	Basic
B	12	13	93%	89%	7	8	D	C	F	D	6.5	Below Basic	Basic
C	48	69	73%	43%	10	10	F	F	F	D	5.5	Below Basic	Below Basic




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### Taking it to the Next Level-Adding in More Refined Behavior Data




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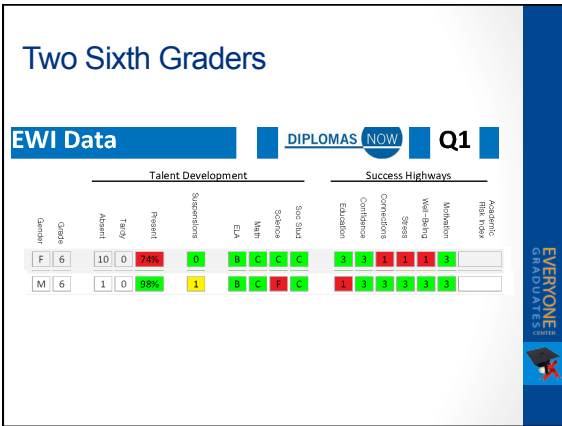
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Analyze Early Warning Indicator Data at the Individual, Classroom, Grade, School, and District level

Ask what is the most strategic point/level to intervene

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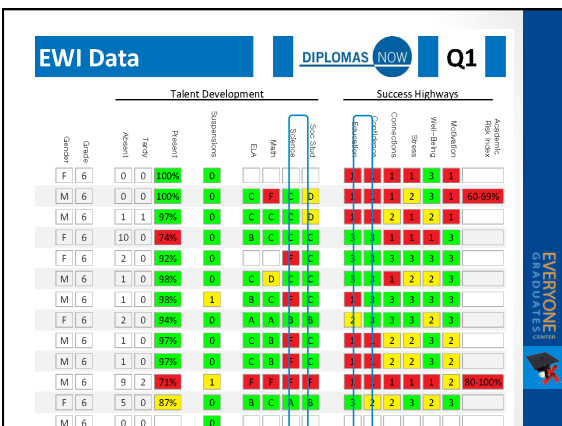
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Questions?



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What do We Know About Intervention Systems?



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Once a student has an off-track indicator reversing course will require either changing student behavior and/or solving a problem

Both of these require an effective relationship between an adult and the student



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This is Challenging to do with large numbers of students

Thus a good intervention system has strong prevention elements which reduce the number of students who develop off-track indicators



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### Building a Strong Intervention Systems Key Idea

- Combine ready access, at the classroom level, to on and off-track indicators (the ABC's), with regular time to analyze the data and an organized response system that can act upon early warning data in both a systematic and tailored manner.



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### Building a Strong Intervention Systems Core Organizing Principle-Who Needs to be Involved?

- To Answer Need to Understand Scale and Scope of Challenge at School Level-How Many Students Have Off-track Indicators?
- If its less then 20 than an individual counselor, social worker, or graduation coach can lead the effort
- If its between 20 and 50 then a small dedicated team of staff members-e.g. students support team can lead the effort
- If its more than 50 than teacher teams will need to play a critical role
- In all cases investments in mission building, professional development, coaching and networking are critical to success



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### Intervening at the School-Level Basic Idea

- Compose a "support list" of students and revise it regularly based on the indicators
- Act on the data shown in the "support list"
- Make decisions about actions and interventions as a team pooling multiple adults knowledge
- Use knowledge of your school and students when choosing interventions (one size does not fit all)
- Build on Student Strengths
- Assign adult champion with a relationship with student to make sure intervention occurs
- Track outcomes of interventions on a regular basis



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### Implementing at School Level: More Advance Approach -Link Early Warning Data to Tiered Interventions

- Have diagnostic tools to deduce if student behavior is driven by academic, socio-emotional needs or both
- Look for and act upon patterns that emerge from the data- at individual, classroom, school, and district level
- Systematically apply school-wide preventative, targeted and intensive interventions until students are on-track
- Use additional data to tailor interventions e.g. are most students failing overage? ELL? From just one or two classrooms?



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### Two Key Questions

- Based on analysis of the EWI data what is the most effective and strategic level of intervention-student, classroom, or school level?
- Does the school have the scale and scope of interventions needed to reach all students effectively?



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### Is Your School Ready to Promote the ABC's of Student Success?

	Attendance	Behavior (including effort)	Course Performance
Whole School	Need: Capacity: Effectiveness:		
Targeted			
Intensive			



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### Building a Strong Intervention System Good Practice

- Practice intervention discipline-do not go first to highest intensity intervention
- Track outcome of interventions frequently
- Cast a wide support net, involve students, parents, non-profits and community organizations in keeping students on track
- In schools with large numbers of off-track students, often need to organize a "second shift" of adults from non-profits and the community to insure all off-track students can be supported



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### Key ABC Interventions- Learning from Early Adopters



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### Focus on the ABC's-Attendance

- Organize comprehensive efforts built around knowledge that from the middle grades on student absenteeism driven by combination of student choice, school factors driving students away, and out of school factors pulling them away



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### Focus on ABC's-Attendance Cont.

- Create programming that compels students to come to school-e.g. most engaged secondary grades students often found in cognitively rich activities which combine teamwork with performance (Robotics, debate, drama, chess etc.)
- Build an attendance problem solving capacity into schools and districts extend it via a network of relationships with wrap around service providers and organizations which can provide additional adults during the school day to serve as "Success Mentors"



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### Focus on ABC's-Behavior and Effort

- Model and teach resiliency and self-management and organization skills
- Implement school-wide positive behavior support programs and alternatives to suspensions
- May need to re-examine disciplinary policies
- Work to insure that student's experience consistent academic and behavioral norms as they travel from class to call
- Build Success Scripts in student's heads (effort leads to success), work to undermine Failure Scripts (success is capricious, withholding effort keeps you psychologically safe)



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### Focus on ABC's- Course Performance

- Provide course coaching-assistance, support, and on occasion even advocacy which enables students to succeed in their courses-including monitoring assignment completion, and preparation for tests and quizzes, and help with catching up when absent.
- Make sure tutoring efforts are linked tightly with needs and expectations of student's courses- (don't work on fractions, if Friday's test is on probability)
- Need effective second chance and credit recovery programs which hold students accountable but provide a reason for them to keep trying



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### Keys to Using Early Warning Systems in Schools

- **It takes a team with time and facilitation**
  - Individual teachers cannot do it alone
- **It takes easy-to-access, timely, and actionable data**
  - School time is precious and needs to be used for analysis and action, not data assembly
- **It takes a multi-tiered intervention system**
  - Think supercharged RTI involving *everyone*
- **It must be integrated with instruction**
  - No silos



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### The Good News is

- We know why students dropout, which schools they dropout from and what the warning signs are
- Effective interventions and examples of substantial improvement exist, even in cities once viewed as unreformable and states viewed as too poor.
- We are left with a giant engineering challenge of getting the right supports, to the right students, at the right time, at the scale and intensity required.
- America is good at engineering challenges



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### For more information

- Visit the Everyone Graduates Center website at <http://www.every1graduates.org>
- E-mail Robert Balfanz at [rbalfanz@csos.jhu.edu](mailto:rbalfanz@csos.jhu.edu) and Joanna Fox at [jfox@jhu.edu](mailto:jfox@jhu.edu)



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### Questions?



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