5 Steps to Building an At-Risk Student Model
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Today’s Agenda

- What is an At-Risk Student Model (aka “Early Warning System” or EWS)
- Why schools need an early warning system
- A Brief History of Early Warning Systems
- Characteristics of a quality Early Warning System
- Steps to creating an Early Warning System
What is a Student Early Warning System?

“A student early warning system (EWS) is a systematic framework for identifying students early on who are at increased risk for academic failure, disengagement, dropping out and mental health concerns.”
What is a Student Early Warning System

There are many similarities of an early warning system with the basic tenets of RtI/MTSS system…

- System-level analysis
- Universal screening at multiple levels
- Matching students to interventions
- Monitoring progress
- Problem-solving model
Why do Schools Need an Early Warning System?

“The empirical research is clear… early intervention is one of the most important things schools can do to reduce student failure and disengagement”
Why do Schools Need an Early Warning System?

- We must not wait until students fail.
- In order to change the trajectory of this epidemic of academic failure we must be able to identify these at-risk students as early as possible.
- Intervention systems cannot be highly effective unless we are able to identify the root causes of student failure and match students to the interventions.
Poll Question

When Do We Stand Today?

Does your school or district currently have an Early Warning System in place?

A. No and we have no current plans to create one
B. No, but we want to create one
C. Yes, but we are looking to improve our current EWS
D. Yes, and we are happy with our current EWS
A Call to Action

“High School Dropout Problem”

• Given the high percentage of students dropping out and of students not being career and college ready there must be a “call to action” so that we may stem this tide.

• The high school dropout problem has been called a national crisis. According to the National Center for Education Statistics”

➤ Only 74.9 percent of public high school students graduate with a diploma (Stillwell, 2010).
A Call to Action

“High School Dropout Problem”

- The problem is particularly severe among students of color, English language learners, disadvantaged students, and students with disabilities (Greene & Winters, 2005; Stillwell, 2010; U.S. Department of Education, 2006).
A Call to Action

The Failure Cycle Starts Early

- 64% percent of elementary students who were retained did not graduate.
- 63% percent middle school students who were retained did not graduate (Alexander et al., 2003).
- Studies have emerged that indicate anti-social behavior of students as young as kindergarten can be a potent predictor of long-term outcomes.
- 78% - of 8th graders who attended school less than 80% of the time—equivalent to missing 5 weeks of school—eventually dropped out of school. (Neild & Balfanz, 2006)

Early Warning Systems can Accurately Predict
Early Warning Systems Allow Schools to:

- **Identify** - students who are underperforming through use of research-based indicators
- **Predict** - students who are at-risk of not graduating high school.
- **Target resources** - to support off-track students while they are still in school
- **Examine Patterns** - to identify school climate, curriculum & instruction issues
- **Identify Subgroups** – to determine if there are systematic group patterns of risk
Characteristics of an Effective Early Warning System

- Include all salient variables and factors
- Be highly reliable and stable
- Have predictive validity and accuracy to limit false negatives and false positives
- Be able to match students to the most appropriate effective intervention or program
- Measure the efficacy of interventions
- Adapt to on-going data analysis
The Important Questions
In Creating an “EWS”

Indicators
Which are the most salient?
How do we Identify them?
Interventions Available?

Transition
What are key transition points?
How Many?

Processes
What is the process of “disengagement” from school?
How do we weight variables?
Multiplier Effect?

Predictability
Can we predict who is likely to drop out?
Which interventions will work with whom?

Assessments
What readily-available data do we have?
Do we need other specialized assessments?
History of Early Warning Systems

• Early warning systems originally focused on drop out identification for students beginning at 9th grade.
• Early efforts in identification focused on checklists and interviews back in late 1980’s
• It was difficult to determine how many characteristics were needed to know if a student was at risk
• It was unknown the what degree of a deficit/delay was needed to know if a student was at risk
History of Early Warning Systems

• This unscientific approach often was inaccurate and mis-identified students

• Districts were also using measures developed from other contexts that were dissimilar than their own with very mixed results

• Since the early 1990s, several longitudinal studies zeroing in on individual school districts have shed considerable new light on how, in addition to why, students drop out of school
Over the past 10 years, policy makers and educators have begun to understand that academic failure can take root at very early ages in elementary school.

Expanding research by researchers such as Robert Balfanz has begun to identify key predictive risk factors that portend a student is on a path for academic failure.
• In 2010 only 3 states had early warning systems available to school districts.

• Many more states have instituted statewide early warning systems for identifying students at-risk of dropping out of high school (e.g., MN, MS, WA, LA, VA, AL) but many of these models are lacking key indicators.
Many states are requiring very specialized early warning system initiatives

- 3rd grade reading in OH, MN, FL
- dyslexia screening in LA

Some school districts are beginning to employ their own local systems that highly are detailed and responsive
5 Steps in Establishing a Student Early Warning System

1. Create District/School Leadership Teams
2. Identify your indicators or variables (effect, causal, status, assets)
3. A comprehensive data system
4. Build your EWS
5. Analyze the results & monitor accuracy
Step 1 - **Create a District Leadership Team**

**Implementation Science literature is clear...**

- Your early warning system will have a higher probability of success if you have a district leadership team involved in the development and implementation.

- The leadership team should be involved in tasks such as:
  - Reviewing the research related to at-risk factors
  - Reviewing data management capabilities
  - Review current programs and interventions for at-risk students
  - Communicate goals to staff, parents and students and establish buy-in
  - Allocate the resources needed for all aspects of the EWS
Step 1a- **Create a District Leadership Team**

**Team Membership:**

- Involve community leaders, business leaders and other community members
- Each building have at least one member
- Representatives of important education disciplines (special ed, ELL, school psychology, counseling, social work, GT)
- Effective leader and facilitator
- Use a “work team” structure
- Be active and meet regularly
Step 1a - *Create Building Level Teams*

**Building teams:**

- Key building reps with a data expert
- Evaluate their data
- Connect with students
- Provide support services and program
- Monitor progress
- Report back to district level team
Although there is no single pathway that every disengaged student follows, the research has helped:

- There are common indicators and “barriers”
- There are some common patterns
- There are some common crisis spots and transitions

Students can quickly move from low risk to high risk with little notice
Step 2a - Identify Key Indicators of At-Risk Students

The Most Common “Effect” Indicators:

- Engagement
- Academic Performance and Level
- Behavior

Strong indicators should have at greater than 50% probability of predicting a negative outcome.
Early Elementary School:
1. Reading – Not on grade level by 3rd grade
2. Difficulty with peer relations & lack of friends
3. On going behavioral control difficulties
4. Distinct lack of persistence with tasks
5. Attendance is less than typical student

The earlier a student sends a signal the greater the likelihood they will become a dropout (Nield & Balfanz, 2007)
Step 2a - Identify Key Indicators of At-Risk Students

The Big Four in 6th grade:

1. Failing Math
2. Failing English
3. Attendance <80
4. At least one poor behavior mark

Gerald, C. 2006
Step 2a - Identify Key Indicators of At-Risk Students

Three factors gave students at least a 75% probability of dropping out:

**8th grade warning signals:**
1. Failing math in 8th grade
2. Failing English in 8th grade
3. Attending less than 80% of the time

**9th grade warning signals:**
1. Earning fewer than 2 credits
2. Not being promoted to 10th grade
3. Attending less than 70% of the time
Step 2a - Identify Key Indicators of At-Risk Students

High School warning signals:

- Attendance – missing 20 or more days of school
- Behavior – Two or more major behavior infractions in a year or sustained mild misbehavior
- Academics – Failing math or English class in the middle grades, failing 2 or more credit classes in high school

Balfanz, B., & Fox, J. 2011
Step 2b- Identify “Status” Indicators of At-Risk Students

The Less Commonly Used “Status” indicators:

- English learner
- Learning disability
- Socio-economically disadvantaged
- Low parental educational level
- Homeless or foster care
- School mobility
- Involved in the justice system
- Grade retention
Step 2c - Identify “Causal” Indicators

- Allows schools to identify the root causes of student failure and disengagement

- Schools can then match students to the appropriate interventions based on the specific causes

- Increases probability of success by using a systematic problem-solving process (ICEL-RIOT)
Step 2c - *Identify “Causal” Indicators*

**Other Lessor Used “Causal” Indicators:**

- History of mental illness of parents
- Identified mental illness in student
- Failing educational system (curriculum, instruction, relationships)
- Alcohol or drug use/abuse
- Identified neurobiological conditions (e.g., ADHD)
- History of bullying or being bullied *(Olweus Survey-Hazelden Foundation)*
- Poor social skills and lack of meaningful relationships
- Low self-esteem
- “Fixed Mind Set” *(Dweck, C.2006)*
- Lack of persistence and grit in managing tasks
Step 2d - **Identify Assets and Protective Factors - “On-Track” Indictors**

- Serve to mitigate the deleterious effects of risk factors & suggests level of intervention required
- **Search Institute** - 40 Developmental Assets of Children and Adolescents
  - **External Assets**
    - Support, Empowerment, Boundaries & expectations, Constructive use of time
  - **Internal Assets**
    - Commitment to learning, Positive values, social competencies, positive identity
Step 2d - Identify Assets and Protective Factors

Protective Factors:

- High parental education, stable home, higher SES,
- “Growth Mind Set” and optimistic viewpoint (Dweck, C.2006)
- High degree of persistence and grit in managing tasks
- Supportive family
- Positive adults in life
## Example Model

**National High School Center EWS**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Time Frame</th>
<th>Benchmark (flag)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>First 20 or 30 days, each grading period, end of year (annual)</td>
<td>Missed 10% or more of instructional time</td>
</tr>
<tr>
<td>Course failures</td>
<td>Each grading period, end of year (annual)</td>
<td>Failed one or more semester courses (any subject)</td>
</tr>
<tr>
<td>Grade point average</td>
<td>Each grading period, end of year (annual)</td>
<td>Earned 2.0 or lower (on a 4-point scale)</td>
</tr>
<tr>
<td>CCSR on-track indicator</td>
<td>End of year (annual)</td>
<td>Failed two or more semester core courses, or accumulated fewer credits than the number required for promotion to the next grade</td>
</tr>
<tr>
<td>Behavior</td>
<td>Each grading period, end of year (annual)</td>
<td>Locally defined</td>
</tr>
</tbody>
</table>
# Example Model

<table>
<thead>
<tr>
<th>Social Background</th>
<th>Academic Performance</th>
<th>Educational Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle School</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. SES — FRPL eligibility, family income, etc.</td>
<td>1. Grades in academic subjects including at least English and math by end of quarter, semester and year</td>
<td>1. Attendance — number of days or percentage of days absent</td>
</tr>
<tr>
<td>2. Race/ethnicity</td>
<td>2. Failing grades in math and English</td>
<td>2. Discipline problems — indicators of poor behavior, including, for example:</td>
</tr>
<tr>
<td>3. Gender</td>
<td>3. Scores on standardized assessments in at least reading and math, including grade-level and benchmark assessments</td>
<td>a) classroom behavior marks</td>
</tr>
<tr>
<td>4. Mobility — number of schools enrolled</td>
<td>4. Number of times retained in grade during elementary and middle school</td>
<td>b) number of office referrals</td>
</tr>
<tr>
<td>5. Years overage for grade</td>
<td></td>
<td>c) number of counseling referrals</td>
</tr>
</tbody>
</table>

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*Craig Jerald, 2006*
<table>
<thead>
<tr>
<th>Social Background</th>
<th>Academic Performance</th>
<th>Educational Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High School</strong></td>
<td>1. Grades in core academic subjects, by end of quarter, semester and year</td>
<td>1. Attendance — number of days or percentage of days absent</td>
</tr>
<tr>
<td></td>
<td>2. Number of courses failed and passed in core courses, by end of quarter, semester and year</td>
<td>2. Discipline problems — indicators of poor behavior, including, for example:</td>
</tr>
<tr>
<td></td>
<td>3. Number of credits attempted by semester, by year and cumulatively</td>
<td>a) number of office referrals</td>
</tr>
<tr>
<td></td>
<td>4. Number of credits earned by semester, by year and cumulatively</td>
<td>b) number of counseling referrals</td>
</tr>
<tr>
<td></td>
<td>5. GPA by semester, by year and cumulatively</td>
<td>c) number of suspensions</td>
</tr>
<tr>
<td></td>
<td>6. Ninth grade “on-track indicator” equivalent to or adapted from measure developed by Consortium on Chicago School:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) earned enough credits to be promoted and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) received not more than one semester F in core academic subject, with same calculated for subsequent grade levels</td>
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</tr>
<tr>
<td></td>
<td>7. On-time promotion to 10th grade</td>
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<td></td>
<td>8. Scores on standardized assessments, including grade-level, end-of-course, benchmark assessments and exit exams</td>
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<tr>
<td></td>
<td>9. Dropped out previously and re-enrolled</td>
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</tr>
</tbody>
</table>

Craig Jerald, 2006
Indicator Summary

1. Reading Achievement / Trends
2. Math Achievement / Trends
3. Course grades and work completion
4. Major behavior issues or on-going trend
5. Key status variable (special education, homeless)
6. Key causal variables (mental illness, ADHD)
7. Assets and protective factors
1. You should not use academic indicators alone, particularly state test scores

2. Past academic status may not predict how students will fare as they pass through key transition points

3. Monitor trends – before students become at risk

4. You can begin to identify at-risk students much earlier than 6th grade

5. Monitor multiple factors beyond the basics: status indicators, causal indicators and protective assets

6. Transitions from elementary to middle and middle to high school are key points where students trajectories can rapidly change
“School systems will have to have an electronic data system(s), that maintain information on individual students and schools longitudinally.”

(Jerald, C. 2006)
An early warning system in any district demands a robust platform to store and report all student data in effective ways.

The system must be able to manage and report on ANY data source and be in one convenient place for staff and administration (i.e., all types of test scores, attendance, behavior, perceptual data, surveys).

There must be a process within the system to:

- Determine which students are at-risk and to what degree
- Create multiple configurations by grade level and by various domains (dropout, mental health, academic failure)
- Apply flexible cut scores and weighted variables
- Analytics and statistical functions
• Longitudinal data permits districts to follow the progress of individual students as they progress from grade to grade and through transitions (cohort analysis)

• Generates a more detailed, nuanced portrait of the patterns and pathways students tend to follow as they move toward dropping out or achieving career and college readiness skills
**Data & Assessment System Evaluation Tool**

This inventory lists the functions and capabilities that schools find important in a robust data reporting/analytics and assessment delivery software system. This inventory can be used to evaluate the quality of any potential data and assessment system solution. A scoring and weighting system of your own choosing could be created in conjunction with this tool to arrive at area and composite scores.

<table>
<thead>
<tr>
<th>System Area</th>
<th>Degree of Functionality</th>
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<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Core Technology &amp; System Integration</td>
<td></td>
</tr>
<tr>
<td>1. A web-hosted solution and does not require school-based servers</td>
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</tr>
<tr>
<td>2. System is compatible with a variety of web browsers and devices used by teachers, parents and students</td>
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</tr>
<tr>
<td>3. Provides automated and/or integrated data input capabilities from student information system including roster, behavior and attendance data</td>
<td></td>
</tr>
<tr>
<td>4. Can analyze and provide reports on student information system data imports</td>
<td></td>
</tr>
<tr>
<td>5. Enables easy import of a variety of quantitative and qualitative data sets</td>
<td></td>
</tr>
<tr>
<td>6. Exports data in a variety of formats for input into other systems</td>
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<tr>
<td>7. Can flexibly import data from various sources</td>
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</tr>
<tr>
<td>8. Integrates with 3rd party item banks &amp; test content</td>
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</tr>
<tr>
<td>9. Ability to shift roster dates to view historical data</td>
<td></td>
</tr>
<tr>
<td>10. Data is highly secure &amp; FERPA compliant</td>
<td></td>
</tr>
<tr>
<td>11. Can share reports &amp; assessments on a granular basis to site, roles, grade levels, users</td>
<td></td>
</tr>
<tr>
<td>12. Can manage users, roles and permissions easily</td>
<td></td>
</tr>
<tr>
<td>13. System access and permissions are specified in highly granular</td>
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</tr>
<tr>
<td>14. Very fast page loads with little wait time</td>
<td></td>
</tr>
</tbody>
</table>

**Data Reporting, Analysis & Visualization**

- Easy to navigate interface for all users
- Customizable administrator and teacher data dashboards
- Dashboards can display data from multiple external data sources
- All users can easily create customized data reports using data from a multiple assessments and other data as desired
- Can create customized reports with charts, graphs and calculations
- Can create a variety of reports using any data housed in the system
- System has “pre-built” reports available for the most important data sets (e.g., state test scores, 3rd party assessments such as AIMSWeb, DIBELS, MAP, ACT)
- Data reports have the ability to “drill-down” to the district, school, classroom and student level
- Can query the system to generate a group of students based on multiple criteria

**Evaluate Your Data System**

0. Can create a variety of specific student groups for data analysis purposes
1. Can perform longitudinal analyses of data
2. Provides data analyses at the standard and learning target level
3. Provides a business intelligence tool for creating specialized query-based reports
4. Has the ability to import or create custom learning standards (learning targets)
<table>
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<tr>
<th>Category</th>
<th>Measure</th>
<th>Weight</th>
<th>Points</th>
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<tbody>
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<td>Reading</td>
<td>Kindergarten Act 1120 DIBELs Composite Winter High Risk</td>
<td>100%</td>
<td>-30 Points</td>
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<tr>
<td></td>
<td>Kindergarten Act 1120 DIBELs Composite Winter Some Risk</td>
<td>50%</td>
<td>-15 Points</td>
</tr>
<tr>
<td>Writing</td>
<td>Kindergarten Act 1120 - BM Writing Prompt</td>
<td>20%</td>
<td>-2 Points</td>
</tr>
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<td></td>
<td>Kindergarten Act 1120 - Opinion Writing</td>
<td>20%</td>
<td>-2 Points</td>
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<tr>
<td></td>
<td>Kindergarten Act 1120 - Informative Writing</td>
<td>20%</td>
<td>-2 Points</td>
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<tr>
<td></td>
<td>Kindergarten Act 1120 - Narrative Writing</td>
<td>40%</td>
<td>-4 Points</td>
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<tr>
<td>Math</td>
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<td>30%</td>
<td>-10 Points</td>
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<td>Kindergarten Act 1120 - Number Identification (1)</td>
<td>25%</td>
<td>-5 Points</td>
</tr>
<tr>
<td></td>
<td>Kindergarten Act 1120 - Quantity Discrimination (0)</td>
<td>25%</td>
<td>-5 Points</td>
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<td></td>
<td>Kindergarten Act 1120 - Quantity Discrimination (1)</td>
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<td>-2 Points</td>
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<td>Kindergarten Act 1120 - Missing Number (0)</td>
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<td>-5 Points</td>
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<td></td>
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<td>-15 Points</td>
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<tr>
<td>ADHD</td>
<td>Act 1120 ADHD Rating Scale Report - Serious Concerns</td>
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<td>-10 Points</td>
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### Students Per Performance Band

- **Lowest Risk**: 23.1%
- **Low Risk**: 36.3%
- **Moderate Risk**: 39.4%
- **Serious Risk**: None

### Table

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<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Overall Score</th>
<th>Overall Label</th>
<th>Protective Factors</th>
<th>Attendance</th>
<th>Behavior</th>
<th>Depression</th>
<th>Grades &amp; Work</th>
<th>Math Achievement</th>
<th>Reading Achievement</th>
<th>Student Survey of Bullying</th>
<th>Student Survey of Risky Behaviors</th>
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<td>738</td>
<td>Moderate Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
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<tr>
<td>Mccurdie</td>
<td>Soulydeth</td>
<td>972</td>
<td>Lowest Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Above Average</td>
<td>Some Risk</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Lowest Risk</td>
</tr>
<tr>
<td>Ellis</td>
<td>Tony Hoang</td>
<td>889</td>
<td>Low Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Above Average</td>
<td>Serious Risk</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Lowest Risk</td>
</tr>
<tr>
<td>Fallon</td>
<td>Alexssa</td>
<td>877</td>
<td>Low Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
<td>Some Risk</td>
<td>Above Average</td>
<td>Serious Risk</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Lowest Risk</td>
</tr>
<tr>
<td>Mortrud</td>
<td>Saori</td>
<td>850</td>
<td>Low Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
<td>Some Risk</td>
<td>Above Average</td>
<td>Serious Risk</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Lowest Risk</td>
</tr>
<tr>
<td>Lozoya</td>
<td>Della</td>
<td>889</td>
<td>Low Risk</td>
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</tr>
<tr>
<td>Agee</td>
<td>Lan Phuong</td>
<td>877</td>
<td>Low Risk</td>
<td>Highest Risk</td>
<td>Low Risk</td>
<td>Some Risk</td>
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<td>Serious Risk</td>
<td>Low Risk</td>
<td>Low Risk</td>
<td>Lowest Risk</td>
<td>Lowest Risk</td>
</tr>
</tbody>
</table>
Step 4 – *Build Your Early Warning System*

Start Small & Build Buy-In

**Determine your model for determining Risk**

- “# of Indicators” – counting up risk categories
- Cut Points – Will vary around normative thresholds (local, state, national) at different age levels
- Does the data suggest there are “multiplier effects?” Consider weighting the indicators
- “Mathematical Model” – each risk category contributes “X” amount to risk determination
Step 4 – **Build Your Early Warning System**

Determine Your Model for Determining Risk Status

- “Efficiency” of your EWS - (minimizing false positives)
- “Yield” of your EWS - (capturing the largest number of potential at-risk students)
- If triggers are being set for screening (yield/more) vs. intervention (efficiency/fewer students)
Step 4 – **Build Your Early Warning System**

- Determine your “progress monitoring” schedule
  - Attendance: Historical Prior Year, real time monitoring, Start of year during first 20 days, each grading period, end of year
  - GPA: Historical Prior Year, end of each grading period
  - Course Failures: Historical Prior Year, end of each grading period
  - Behavior: Historical prior year, Real time monitoring, end of each grading period, end of year
Step 5 – Analyze Your Data

- **Student-level patterns**: What do your data tell you about individual students who are at-risk?

- **School-level patterns**: What do your data tell you about how the school is doing?
  - Are students who were flagged from the beginning remaining “off-track” through the year?
  - Are students who were flagged at one reporting period back “on-track” at the next?

- **Adjust cut points based on this on-going analysis**
Step 5 – Analyze Your Data

Improve Your Model for Determining Risk Status

• Identify past students in your identified risk categories (dropouts, suicides, general academic failure, mental health)

• Examine the data on these students and determine their status on the various indicators at key transition points in their careers based on historical data

• Determine methodology for on-going data collection
## Sample Model
### Academic/Behavior MN

<table>
<thead>
<tr>
<th>Variable</th>
<th>For Students Starting Grade 6</th>
<th>For Students Starting Grade 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet Proficiency on Mathematics State Accountability Test</td>
<td>The student received a “1” or a “D” (does not meet proficiency) on the mathematics state accountability test in either 3rd or 5th grade</td>
<td>The student received a “1” or a “D” (does not meet proficiency) on the mathematics state accountability test in 8th grade</td>
</tr>
<tr>
<td>Does Not Meet Proficiency on Reading State Accountability Test</td>
<td>The student (based on person number) received a “1” or a “D” (does not meet proficiency) on the state reading accountability test in either 3rd or 5th grade</td>
<td>The student (based on person number) received a “1” or a “D” (does not meet proficiency) on the state reading accountability test in either 8th grade</td>
</tr>
<tr>
<td>Multiple Enrollments (does not include students with dual enrollment)</td>
<td>The student attended more than one school in the same fiscal year for the same grade in 3rd-5th grades</td>
<td>The student attended more than one school in the same fiscal year for the same grade in 6th-8th grades</td>
</tr>
<tr>
<td>Suspension/Expulsion</td>
<td>The student was suspended (in school or out), expelled or excluded at least once in 3rd-5th grades</td>
<td>The student was suspended (in school or out), expelled, or excluded at least once in 6th-8th grades</td>
</tr>
<tr>
<td>Under 85 percent Attendance</td>
<td>The average of the proportion of NCLB average daily attendance days/ NCLB daily membership days for the number of fiscal years the student was enrolled in 3rd-5th grades</td>
<td>The average of the proportion of NCLB average daily attendance days/ NCLB daily membership days for the number of fiscal years the student was enrolled in 6th-8th grades</td>
</tr>
</tbody>
</table>
# Sample Model

**Demographics MN**

<table>
<thead>
<tr>
<th>Demographics</th>
<th>For Students Starting Grade 6</th>
<th>For Students Starting Grade 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Learner</td>
<td>The student was identified as LEP anytime in their 3&lt;sup&gt;rd&lt;/sup&gt;-5&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
<td>The student was identified as LEP anytime in their 6&lt;sup&gt;th&lt;/sup&gt;-8&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
</tr>
<tr>
<td>Free and Reduced Price Lunch</td>
<td>The student was identified as receiving free/reduced price lunch anytime in their 3&lt;sup&gt;rd&lt;/sup&gt;-5&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
<td>The student was identified as receiving free/reduced price lunch anytime in their 6&lt;sup&gt;th&lt;/sup&gt;-8&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
</tr>
<tr>
<td>Special Education Status</td>
<td>The student was identified as receiving special education services anytime in their 3&lt;sup&gt;rd&lt;/sup&gt;-5&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
<td>The student was identified as receiving special education services anytime in their 6&lt;sup&gt;th&lt;/sup&gt;-8&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
</tr>
<tr>
<td>Migrant</td>
<td>The student was identified as a migrant anytime in their 3&lt;sup&gt;rd&lt;/sup&gt;-5&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
<td>The student was identified as a migrant anytime in their 6&lt;sup&gt;th&lt;/sup&gt;-8&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
</tr>
<tr>
<td>Homeless</td>
<td>Not Available</td>
<td>The student was identified as experiencing homelessness anytime in their 6&lt;sup&gt;th&lt;/sup&gt;-8&lt;sup&gt;th&lt;/sup&gt; grade enrollment records</td>
</tr>
</tbody>
</table>
Louisiana performed a retrospective, longitudinal analysis to inform the development of its early warning data system. This enabled the state to fine-tune indicators, increasing the accuracy of the system.

- Absent 10 percent of the days they have been enrolled
- Discipline issues on 7 percent of days or greater
- Current grade point average is 1.00 or less
- Grade point average has dropped by at least 0.5
- Overage for grade
“Dyslexia Screening” K-3

1. Reading
2. Writing
3. Math
4. Attendance
5. ADHD
6. Social/Emotional/Behavior
Early Warning Systems & the MTSS framework

- Create a tiered intervention system
- Place students in appropriate interventions based on root causal analysis
Thank you!

Next Steps:

Illuminate Data & Assessment (Dna) Overview:
http://illuminateed.com/dna-demo

Illuminate On Track Module (part of DnA) Overview:
http://illuminateed.com/ontrack-demo

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