



# **FACILITATING EFFECTIVE INTERVENTIONS**

**USING AN EARLY WARNING  
APPROACH TO PREVENT DROPOUTS**

# EARLY WARNING



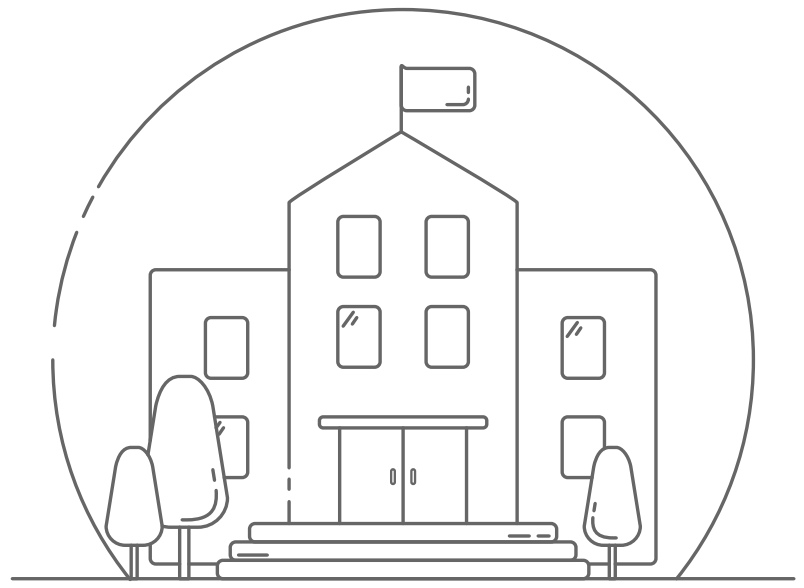
**Often by the time parents, teachers, and districts can see tangible evidence of a student's academic or behavioral challenges, the point at which intervention would have been most effective has already passed.**



**What unites educators is a desire to see every student excel in both academic and social settings.**

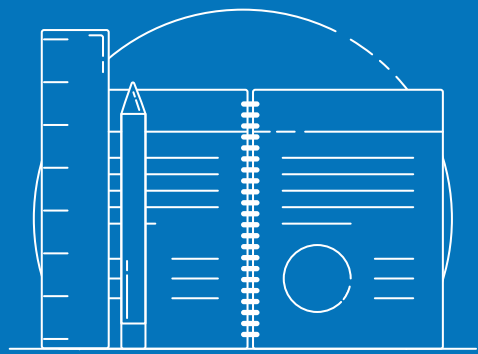
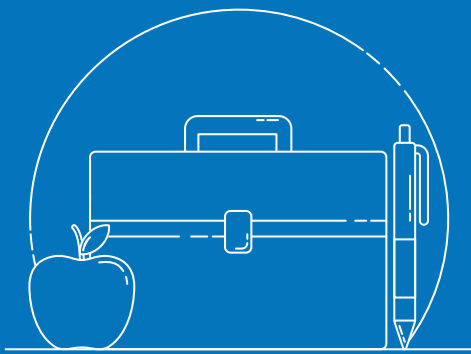
It's by all accounts a lofty goal — one toward which teachers and administrators work tirelessly every day. But the reality is that every student progresses at a different pace, and limited time and resources make it challenging to identify and address the unique needs of every child. Often by the time parents, teachers, and districts can see tangible evidence of a student's academic or behavioral challenges, the point at which intervention would have been most effective has already passed.

Below, we'll take a look at why exactly students are dropping out, how to use data and proactive analytics tools to identify these key indicators, and how educators can intervene effectively.



# THE NEED FOR EARLY WARNING TOOLS

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While dropout rates have generally been declining across all groups of students, there are still significant numbers of students who either drop out of school or fail to graduate on time (McFarland, Stark, & Cui, 2016). Indicators for dropping out vary across districts, states, and student subgroups, but there are consistent trends. For example, the Chicago Consortium for School Research has produced several studies that show that focusing on credits, attendance, and core course outcomes is the key to getting students back on track to graduation (Allensworth and Easton, 2007). Likewise, the Johns Hopkins ABC model shows that additional factors such as behavior can help improve the accuracy of dropout predictions (Balfanz, 2007). While there is some variation in the predictive strength of specific risk variables, there is a large body of evidence that shows a student's overall risk level increases greatly when multiple factors come into play (Hammond, Linton, Smink, Drew, 2007; Gleason & Dynarski, 2002; Ingels, Curtin, Kaufman, Chen, 2002).

This means is that — as most educators already know — underperformance, falling behind, and dropping out doesn't have to be a sudden or surprising result — if you have a valid and holistic view of the student. The challenge comes in strategically monitoring specific risk factors efficiently and consistently, and assigning at-risk students to effective interventions that can be assessed over time.



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# UNDERSTANDING THE PATHS TO DROPPING OUT OF SCHOOL

**Every child is unique and every dropout is equally unique.**

A well-behaved student who is navigating a family crisis, for example, would likely require a different type of intervention than, say, a student that has had poor attendance for several years and is slowly falling behind. Likewise, educators bring different perspectives, experiences, and biases to their work environment.

In order to adequately address an at-risk student, teachers need to not only know that the student is at risk, but also know to what degree and why they're at risk. Schools and districts need to ensure that a consistent

framework for detecting and measuring risk is implemented. Only then can educators consistently identify and administer the specific support that's needed, and track whether the intervention is making a difference in a student's success. Several resources exist that help us understand the types of factors that are associated with dropping out of school. According to a report from the [National Dropout Prevention Center](#), patterns and events that motivate dropout include (but are not limited to):

## School Performance

Low academic achievement  
Retention/Over-age for grade



## School Engagement

Poor attendance  
Low educational expectations

## School Behavior

Misbehavior  
Early aggression

## Family Background

High Family mobility  
Family disruption

## Early Adult Responsibilities

High number of work hours  
Parenthood

Furthermore, educators should view risk factors for an individual student as well as for groups of students. Generally, risk factors can be aggregated at the individual, classroom, grade, and school level. Additionally, grouping students into ad hoc cohorts can be very useful for long-term tracking groups of students who share similar needs.

By identifying different groups and risk factor sources, proactive early warning systems support educators in implementing and running a scalable intervention program with fidelity. Teachers can match students to effective intervention and efficiently administer the specific support students need using evidence-based, sound practices that are administered consistently and accurately.

It is important to keep in mind that students may have very different trajectories to dropping out of school ([Hammond et. al, 2007](#)). The traditional pathway is a feedback loop where disengagement and negative outcomes create a negative cycle over multiple years.



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In comparison, some children will drop out of school rather suddenly, often because something changes in their lives that pulls them from school (e.g., teen pregnancy, parent unemployment). Many children will not drop out (although they may very well not graduate on time), but will exhibit the same warning signs as their peers who did drop out. A small group of students (e.g., 2-3% of dropout students) will likely drop out from school with no visible risk factors (Ingels et al, 2002; [Jerald, 2006](#)).

Finally, about 5 percent of students who drop out don't appear to have any red flags before they stop coming to school.

# LEVERAGING DATA TO DETECT AND REDUCE RISK

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School districts don't suffer from a lack of data — rather, a lack of consolidated and actionable data. And while most early warning models are designed to give educators a sense of who is at risk, they're often time consuming to implement and prone to inaccuracies. The most effective early warning systems not only automate the risk identification and scaffold intervention processes, but they leverage predictive analytics to more precisely anticipate and identify risk before it becomes a larger issue. Predictive capabilities fueled by longitudinal data allow for more meaningful intervention, earlier.

Proactive early warning tools are not only less resource intensive for educators, schools, and districts, but they are also more likely to produce positive outcomes for students. Using sophisticated algorithms,

**Predictive capabilities fueled by longitudinal data allow for more meaningful intervention, earlier.**

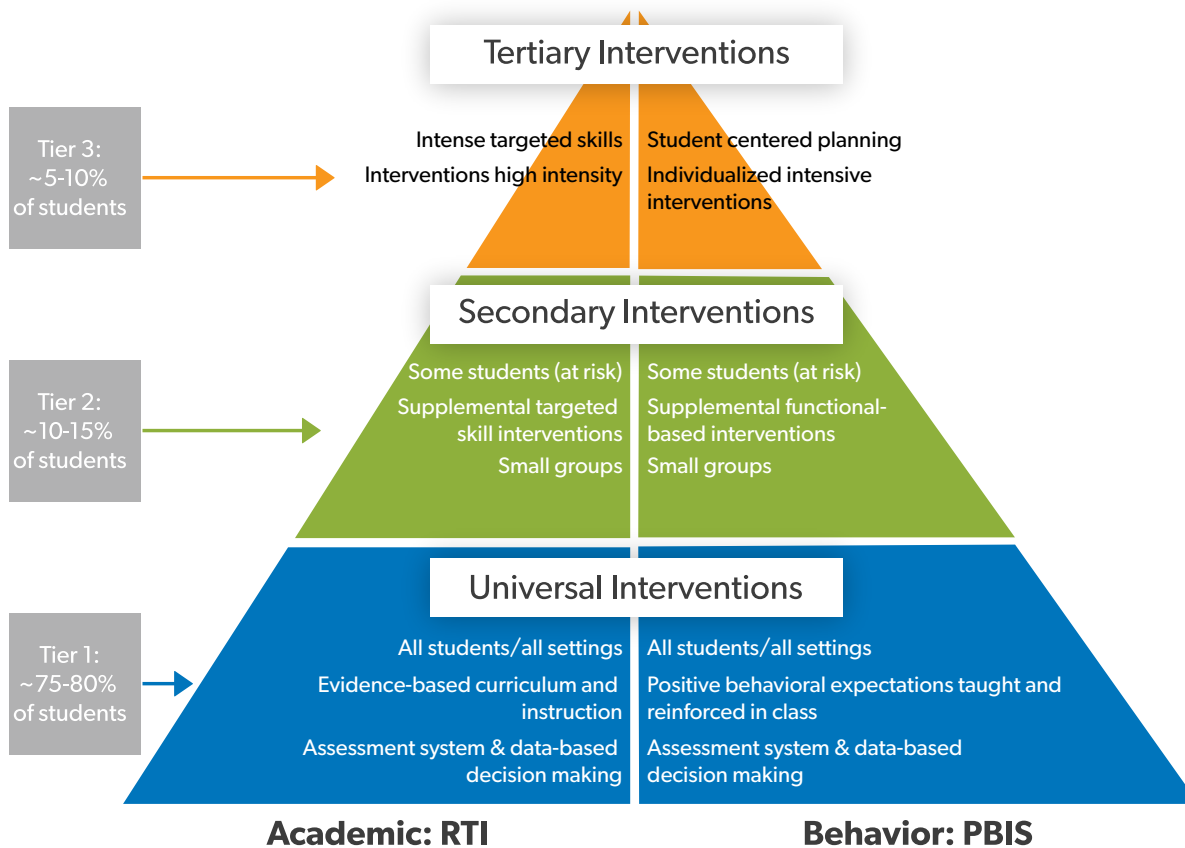
these cutting-edge early warning tools improve the precision of at-risk decision making. This means fewer students are overlooked and interventions are more likely to be delivered to the right students. In addition, measuring risk over time facilitates an understanding of the changes that may occur in a student's overall and individual risk factors. This enables educators to view their intervention efficacy and determine if students are getting back on track or need additional intervention.

# EQUIPPING EDUCATORS FOR MEANINGFUL INTERVENTIONS

No matter how sophisticated an early warning system may be, it can't automate the engagement between teachers, students, families, and/or social workers. In order for any data-driven platform to work most effectively, it must be utilized by qualified and motivated professionals who can capitalize on the tools they're given to inform their interpersonal work. Data dashboards and early warning reporting systems are merely the foundation for the work of making a difference — they can't accomplish it on their own.

At Hoonuit, we strive to ensure that all teachers are equipped with a valid and research-based view of risk factors, have tools that streamline the work of gathering and analyzing data, and are supported in identifying and assigning appropriate interventions. When talented, empathetic educators have the context and tools they need to address and work through a student's individual needs, positive outcomes are not only trackable — they're achievable.

## TIERED SUPPORT MODEL





# HOW HOONUIT EARLY WARNING IMPACTS EDUCATION

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Hoonuit Early Warning is an easy-to-use web-based platform based on a complex proprietary algorithm. Designed for teachers and administrators, the system automates the data-based component of early warning and intervention work so that educators can focus on taking action. It combines risk factor data with detailed student profiles and historical data, which helps educators understand the whole child, identify an issue's root causes, and see the impacts of their intervention actions. Despite the system's complex back-end and machine learning technology, we make this plug-and-play solution easy for educators to effectively implement.

The extremely precise algorithm reduces common errors, such as assigning students to unneeded interventions, or even worse, failing to assign an at-risk student to an intervention altogether.

This helps districts and schools more efficiently allocate resources: only those who need interventions receive interventions. Hoonuit Early Warning also enables educators to set up and track cohorts of students, measuring risk over time. This gives visibility into risk trends, as well as progress made by students, classrooms, schools, and the degree to which interventions are correlated with outcomes.

**Request a demo today!**

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