

Early Warning Systems

Overview

Since 2010, the GradNation campaign has focused on providing supports for increasing the U.S. graduation rate and established the ambitious goal of a 90% national on-time, four-year graduation rate by 2020. The graduating class of 2012 was the first cohort to breach the 80% graduation rate, suggesting the nation is on-track to achieve its goal. However, Florida (with a 2012 cohort on-time graduation rate of 75%) is among 14 states that will have to increase its average graduation rate between 1.5-2.0 points per year to meet the 2020 goal. In addition, Florida was identified as having one of the ten lowest graduation rates for both low-income students and students with disabilities. Florida is also one of the states that must focus on racial/ethnic subgroup graduation rates as it will drive overall national averages for young men of color. One recommendation toward reaching the 2020 goal is related to improving early warning systems (EWS) at the school and state level.² EWS are currently being utilized in 31 states⁶ and use readily available data that is housed at the school or district level to accurately predict which students are at-risk or off-track for on-time high school graduation.⁷

Early Warning Systems Research

High school. In 1999 the Consortium on Chicago School Research created the precursor to the EWS, the On-Track Indicator (OTI), based on number of credits earned and number of failed courses in student's freshman year.¹ In 2008, the National High School Center (NHSC) created an EWS tool, based on the two OTI indicators and three additional measures: semester course failures in all courses (not just core courses), GPA less than 2.0, and absenteeism rate of missing 10% or more of instructional time.⁷ Students who demonstrate even one of the indicators are considered off-track for graduation. By 2011, the EWS was expanded in scope to include not only ninth grade students, but also those in tenth through twelfth grades and allowed for the inclusion of locally validated additional indicators.

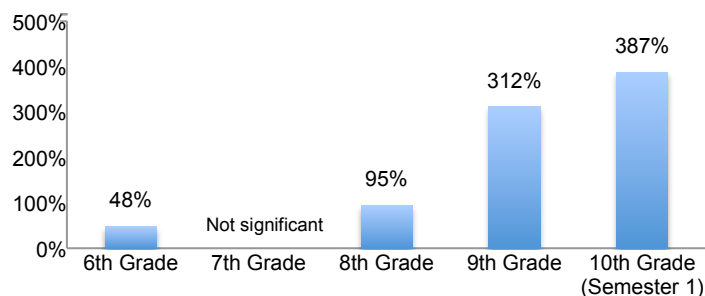
Middle school. In 2011, the NHSC adapted the EWS for middle school students⁴ to identify a younger subset of students who may be at risk for not graduating. The middle school indicators include: absenteeism rate of 20% or more of instructional time, English course failure, mathematics course failure, and behavior.⁸ The seminal research⁴ has shown the greater the number of indicators a student has the greater the likelihood he will not graduate on-time, providing evidence of the additive power of indicators. The graduation rates for students with even one indicator has been found to range from 15-25% depending on the indicator and the context.³

Elementary school. While there are decades of research on dropout predictors and prevention starting as early as preschool or before, there is a paucity of research surrounding the use of EWS at the elementary level. There have been preliminary reports released by districts utilizing locally identified thresholds for attendance, suspensions, and course performance as early as first grade;⁹ however, this is an area in need of continued research.

Prevalence and Persistence of Off-Track Status

Recent research on a cohort of over 4,200 students in a Florida district found that a little over one third of the students were off-track at three or more time points from sixth through tenth grade, suggesting a multi-year pattern. In the absence of systematically provided interventions aimed at mitigating the impact of off-track indicators, off-track status remains relatively constant and increases the likelihood that students will be off-track for graduation from high school.⁵ The data below suggest that intervening as soon as possible is critical to alter student trajectories.

Likelihood of "Off-Track Status" at the end of 10th grade if off-track at end of grade level



Legislative Influence

In Florida, there will be increased focus on EWS usage in middle grades starting in the 2014/2015 school year. Florida Senate Bill 850 was recently signed into effect, which requires schools serving students in any of grades six, seven, or eight to utilize an EWS to identify students with:

- attendance below 90% regardless of whether absences are excused or unexcused
- failing English Language Arts or mathematics courses
- one or more suspensions (in or out of school)
- a Level 1 score on state-wide assessments in English Language Arts or mathematics

Schools may choose to include additional indicators within their EWS.

Schools are required to identify students who display two or more of the indicators and conduct problem-solving team meetings to determine appropriate interventions. Schools that serve students in grades six, seven, or eight are also required to provide information relative to EWS indicators in their school improvement plans. More specifically they must report:

- the specific indicators used in the EWS
- the numbers of students with two or more indicators
- the numbers of students displaying each indicator by grade level
- descriptions of the intervention strategies used to improve academic performance of students identified by the EWS

Conclusion

Early warning systems have been demonstrated to be a powerful tool in identifying and monitoring the progress of students who may be at-risk for not graduating on time. While EWS provide means for identifying at-risk students, schools and districts must engage in data-based problem solving to identify the root causes for indicators and match evidence-based interventions to student needs and monitor the effectiveness of the interventions in order to truly improve student outcomes.

References/Resources

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