



BEYOND THE NUMBERS CONVENING 2014

Breakout Session Summary

Analytics to Inform Early Warning Indicators | The K–12 Pipeline

Early warning indicator (EWI) systems, used to identify students at risk of dropping out or not graduating on time, have traditionally focused on collecting data from high school measures such as attendance, GPA, and high-stakes testing. Education agencies assert that incorporating data from the elementary grades could allow for a deeper understanding of long-term student outcomes. This session highlights EWI systems that are working to collect information throughout the elementary and high school grades, integrate data from a variety of sources, and incorporate measures of additional factors, such as engagement, academics, and behavior.

Kate Sandel, Strategic Data Project Fellow for the Massachusetts Department of Elementary & Secondary Education, discussed the work she has supported to ensure that the state’s Early Warning Indicator System (EWIS) included data from the early grades. By partnering with the American Institutes for Research (AIR) to create an EWIS, Sandel provided valuable input on the longitudinal datasets that were most important to building a reliable predictive model. In addition, she was able to focus on the roll-out and implementation of the EWIS pilot. Smooth implementation is a key challenge for any state education agency leader seeking to roll-out a new initiative. Yet, key resources and on-site coaching helped Sandel guide districts’ use of the EWIS. According to Sandel, “schools value having a ‘sheet’ that they can fuse with their data,” since this ultimately allows teachers to truly own the data analysis work. One caution that Sandel warns against is the over-identification of students. However, Sandel emphasized that the value of the insight gained by better understanding what factors lead to students becoming “at-risk” far outweighs the risk of over-identifying students.

At the district level, **Geoff Sanderson, associate superintendent for Montgomery County Public Schools (MCPS)**, described the long-term work at MCPS to effectively target students most in need of intervention. MCPS—a district with one third of students living in poverty and a relatively low mobility rate—began studying graduates from the class of 2011 to better understand why students “beat the odds.” The intensive data analysis led to the production of a pilot EWIS that includes attendance, behavior, and course performance (“ABC”) as proxies for student engagement. Other factors included in MCPS’ EWIS include academics, behavior (tardiness, absence, suspension), and whether or not a student is new to the district.

Last, participants heard from **Taneisha Woods, director of chapter programming and research for Say Yes to Education, Inc.**, who described the organization’s mission to work with families in ways that ensure student success from K–12 to graduation and beyond. Say Yes serves 62,000 scholars (students in K–12) across seven regions and provides support in the areas of financial resources, academic readiness, health and well-being, and social and emotional readiness. The organization’s EWIS system, known as the Student Monitoring and Intervention System (SMIS), was developed in collaboration with AIR. SMIS

includes 13 indicators such as cultural capital, peers, and a student's understanding of numeracy. The data that feeds the SMIS is holistic, as it includes school district data reports, parent surveys, student surveys, and other information gathered by key providers. Using this data, Say Yes creates a student growth plan implemented by student support teams that include a facilitator (e.g., psychologist, guidance counselor, or social worker) from Say Yes. The process has provided valuable lessons about family survey response rates, timing of survey administration, the capacity for school databases to interface with SMIS, and a shared understanding of the purpose of SMIS. Establishing a common language for what it means to be "on-track" or "at-risk" is a fundamental first step for anyone interested in building out an EWIS.