

STUDENT SUCCESS SYSTEMS SHOW POSITIVE RESULTS

Student success systems—also known as early warning or on-track systems—promise to enable students to graduate from high school ready for post-secondary opportunities. They do this through early identification of students who need additional supports or improved learning experiences coupled with effective actions to keep these students on the path to success. Recent **randomized controlled trials**—the gold standard for determining the causal impact of educational interventions—have shown that student success systems have generated positive results for students, schools, districts, and communities.

WRITTEN BY DANIEL PRINCIOTTA, PH.D.
JOHNS HOPKINS UNIVERSITY

Student Success Systems

Student success systems are known by various names, including early warning systems, early warning and intervention systems, freshman on-track systems, and multi-tiered systems of support.

Key elements include: on-going analysis of leading indicators linked to key student outcomes by school-based teams who employ a tiered system of interventions and supports to help students succeed.

This brief reports on several recently evaluated student success systems:

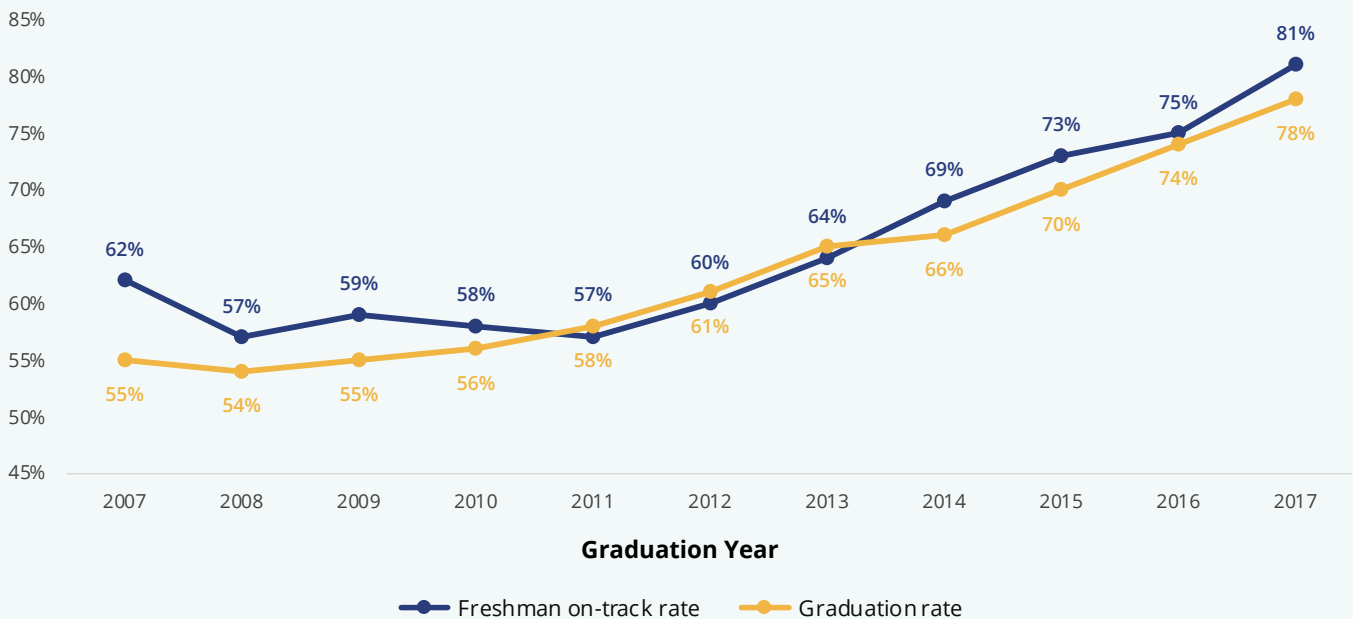
- Building Assets Reducing Risks (BARR)^{1-3,5}
- Diplomas Now^{4,6,8}
- Early Warning Intervention and Monitoring System (EWIMS)⁷
- Early Warning Intervention Team^{6,9}
- Freshman On-Track (Network for College Success)¹⁰



Positive Impacts on Students and Schools

Strong evidence now exists that student success systems have improved leading indicators of high school graduation and college readiness, such as student attendance, behavior, grades and GPA, credit attainment, assessments, and being on track to graduate. Long-running Chicago research shows that improvements in high school freshman on-track rates can be tightly linked to improvements in graduation rates over time (figure 1).¹⁰ Student success systems also have had positive impacts on both student and teacher attitudes and experiences.

Figure 1. Chicago 5-year cohort graduation rate and Freshman On-Track rate four years earlier: 2007–2017¹⁰



Less chronic absence and higher attendance rates.

In several experimental studies, students with student support systems had lower rates of chronic absence (missing 10% of school days or more) than did students in business-as-usual conditions.^{3,4,7,9} The magnitude of these differences ranged from 3 to 5 percentage points in absolute and 13 to 29 percent in relative terms, where readily estimable.^{3,4,7} One study also saw higher overall attendance in schools with student support systems than in control schools (94.6 percent vs. 93.5 percent).⁷

Higher grade point averages (GPAs). Students in schools with student success systems saw higher GPAs than those in control schools in several experimental studies.^{3,5,7} The magnitude of these effects was on the order of one tenth^{3,7} to two tenths⁵ of a GPA point. In one study, stronger effects on GPA were evident for students who were economically disadvantaged, of color, or English learners.³

Improved math and reading achievement.

In several studies of Building Assets Reducing Risks (BARR), ninth graders in the student support system condition scored higher on mathematics assessments than students in the control condition did.^{1,3,5} Impacts on math were the equivalent of 3 to 4 percentile points, on average, in the most recent studies.^{1,3} Impacts on reading achievement were evident in the earliest BARR study (although smaller than that in math)⁵ and among poor and “minority” students in the most recent BARR study.¹

Improved student behavior.

Both students and teachers have reported better student behavior in schools randomly assigned to implement student success systems than in business-as-usual schools.^{3,8} Students reported lower levels of problematic student behavior in Diplomas Now schools that included restorative justice practices than in business-as-usual schools.⁸ The magnitude of this effect

was equivalent to a 5 percentile improvement relative to the average control student.⁸ In another study, teachers reported more positive student behaviors, attitudes, and commitments in treatment schools than in controls.³

Better relationships with students. Students with success systems reported better relationships with school staff compared with students in business-as-usual conditions.^{1,4} In a recent study of BARR, ninth graders reported better relationships with teachers,¹ and in the Diplomas Now evaluation, sixth and ninth graders scored higher on a measure of positive student relationships with at least one adult at the school other than a teacher.⁴

Stronger school climate and higher expectations. Both student relationships with school staff and student behavior contribute to school climate. In the study of Diplomas Now and Restorative Justice practices, treatment schools had higher levels of student-reported overall school climate, including a supportive social environment, responsive instructional practices, and fewer problematic student behaviors.⁸ High expectations are another key element of school climate. In a study of BARR, ninth graders in the student support system condition reported higher teacher expectations for students and greater academic rigor in their classes.¹ In the most recent BARR study, teachers in student success system schools reported higher expectations for students' future postsecondary educations than did teachers in business-as-usual schools.³

Improved teacher collaboration and experiences. In the BARR scale-up study, teachers participating in the intervention reported higher levels of collaboration with their colleagues, views of the school's supports, teacher data use, and teacher's strength-based mindset.³ The recent evaluation of Diplomas Now coupled with Restorative Justice practices also found that teachers reported increased collaboration in schools with student success systems; in addition, it found reduced teacher reports of problematic teacher absenteeism in student success system schools.⁸

More student supports delivered after school. Student success systems can help deliver supports beyond the traditional school day. The school-sponsored afterschool participation rate was about 5 percentage points higher in Diplomas Now schools than in control schools; similarly, the rate of student participation in academic afterschool programs (e.g., homework help, tutoring, and test preparation) was 8 percentage points higher.⁴

Fewer early warning indicators. Sixth grade students in schools randomly assigned to implement Diplomas Now were more likely than students in control schools to demonstrate none of the following early warning indicators as of the end of the year: attending 85 percent of days or less, being expelled or suspended for three days or more, or failing a math or English language arts course during the school year (difference of 4 percentage points).⁴



Implementation & Improvements Ahead

An important caveat to these findings is that how student success systems are implemented is essential. Higher levels of implementation of student support systems have been shown to be associated with more positive student outcomes.^{5,6} The presence of more types of interventions used to address ninth graders with early warning indicators has been associated with higher credit attainment rates, increased odds of passing all or all but one course, higher attendance rates, and lower chronic absence rates.⁹

The studies reviewed in this brief demonstrate that student success systems have led to better outcomes for students. Presently, school and district leaders, researchers, education policymakers, and education technology engineers are working to develop the next generation of student success **systems** to increase the depth and breadth of their impacts on students and schools.

This brief reports on several student success systems evaluated experimentally or longitudinally in recent years:

Building Assets Reducing Risks (BARR). This model fosters relationships among students and staff and includes: course scheduling to create student-staff cohorts; regular interdisciplinary teacher team meetings focused on the success of all students; review meetings for students flagged as needing more intensive supports; student inter and intra-personal skill building lessons, and administrator engagement.^{1-3,5}

Diplomas Now. This model weaves together: the **Talent Development Secondary's (TDS)** teacher team-based early warning system with near-peer success coaches to provide targeted student interventions; and wrap around supports for out of school challenges.^{4,6} Diplomas Now has also been implemented alongside schoolwide Restorative Justice practices.⁸

Early Warning Intervention and Monitoring System (EWIMS). This model involves using data to recognize students at risk of failing to graduate on time, providing these students with interventions, and monitoring their response to intervention, supported by protocols and tools developed by AIR.⁷

Early Warning Intervention Team. This model involves an early warning system, a tiered intervention system and funding for a half-time promotion coach following guidance developed by the **Everyone Graduates Center**.^{6,9}

Freshman On-Track. This model is built around teacher teams who share a common set of students and have a regular time set aside to progress monitor their students with research based on-track indicators and develop responses and supports for students who need them guided by protocols and tools developed by Network College Success and a network of on-track teams.¹⁰

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