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JOHN W. GARDNER CENTER
*for Youth and Their Communities*

Developing Early Warning Indicators for the San Francisco Unified School District

San Francisco's Bridge to Success (BtS) initiative brings together the City of San Francisco, the San Francisco Unified School District (SFUSD), the City College of San Francisco (CCSF), and key community organizations to promote high school and postsecondary success for underrepresented students. One strategy to promote student achievement is an Early Warning System (EWS) that identifies students at risk of not graduating from high school. Discussions between SFUSD staff and researchers from the John W. Gardner Center for Youth and Their Communities (JGC) at Stanford University have led to the development of indicators for an EWS with the key purpose of enabling high schools to identify incoming ninth grade students who need extra supports to get back on track.

Indicators to Support Incoming Ninth Grade Students

The JGC conducted an analysis to identify the most predictive indicators of high school graduation that would allow high schools to identify students in need of additional support on the first day of ninth grade. SFUSD selected two eighth grade indicators – or risk factors – that predicted a four-year high school graduation rate of approximately 25%: (1) GPA below 2.0 and (2) attendance rate below 87.5%. Incoming ninth grade students who entered with exactly one eighth grade risk factor were half as likely to graduate as students who entered with zero risk factors (43% compared to 84%). The graduation rate of students with two risk factors dropped to 15%.

Exhibit 1. Four-Year High School Graduation Rate, by Number of Year-End Eighth Grade Risk Factors
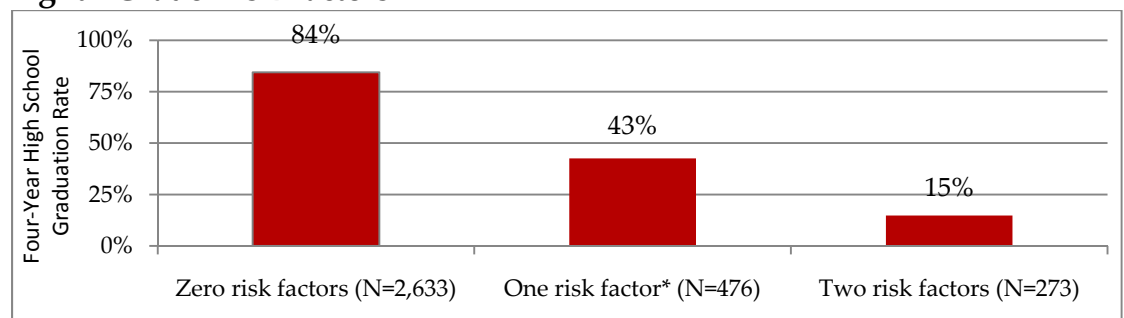

Notes: Analysis combined data from two cohorts of students who were enrolled in SFUSD as eighth graders and then entered ninth grade during the fall semester of the 2005-06 and 2006-07 school years. Results were then averaged to provide SFUSD a picture of how indicators would impact a typical school year. This resulted in a cohort of 3,382 students who had a four-year high school graduation rate of 73%.
* Among students with one risk factor, 58% had low GPA (n=274) and 42% had low attendance (n=202).

Approximately 22% of the incoming ninth grade class entered with one or two risk factors, with significantly higher percentages among African-American (53%) and Latino (39%) students. The presence of at-risk students varied by high school; the highest number of students were identified at Galileo, Lincoln, and Washington (approximately 100 students each), but four smaller schools – ISA, June Jordan, Mission, and O'Connell – had the highest percentage: almost half of their incoming classes identified were at risk.

Research demonstrates that the transition into high school is a critical time in students' academic careers. Exhibit 2 illustrates that regardless of the number of risk factors, students who passed all their core courses in the first semester of ninth grade had significantly higher graduation rates than students who failed even one core course. As one example, students with one risk factor who passed all their core courses were 23 percentage points more likely to graduate (55% compared to 32%). Students with one risk factor were about evenly divided between those who passed all their core courses (n=219) and those who failed at least one core course (n=257), indicating that there are opportunities to positively affect a student's academic trajectory at this late but critical juncture.

Exhibit 2. Four-Year High School Graduation Rate, by Number of Risk Factors and Course Failures in the First Semester of 9th Grade
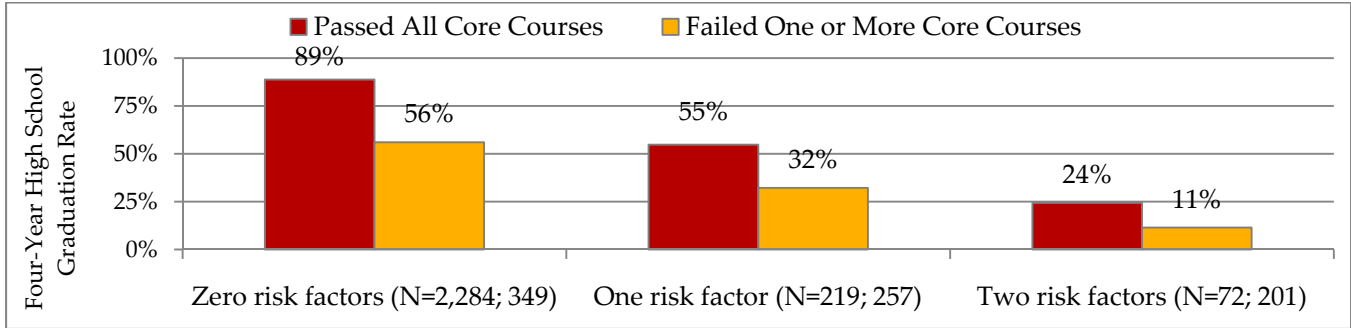
Notes: Core courses include Math, English, Social Studies, and Science. Passing indicates a grade of "D" or higher.

From Findings to Action

This report details the development of two indicators that can help high school principals identify a substantial portion of the incoming ninth grade class who are at risk of not graduating within four years. SFUSD and JGC are currently collaborating to develop additional indicators that can serve as the best predictors of high school completion at the ninth grade level and beyond. However, equally important as the indicators is the strategy for their dissemination and usage. Other districts that have developed an EWS have also invested substantial time and resources in understanding the best practices that can help incoming students who they have identified as at-risk successfully transition into high school. As one example, SFUSD is considering a modified version of these indicators based on the first-semester of eighth grade to enroll at-risk students in a transitional summer program prior to ninth grade. In both raw numbers and percentage terms, students identified as at-risk are not equally divided among SFUSD high schools, and strategies to improve student performance may need to be substantially different among schools.