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EARLY WARNING SYSTEMS IN ACTION

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The first year of high school is challenging for students (Felmlee, 2018). Research indicates that, during that year, students are more likely to show declines in key measures of school engagement and academic success including Grade Point Average (GPA) and attendance rate, both of which are predictive of high school graduation (e.g., Allensworth et al., 2014; Kieffer, Marinell & Neugebauer, 2014; Neild, 2009). For many years, the San Francisco Unified School District (SFUSD) has been implementing two initiatives—the Early Warning Indicator (EWI), and the Transition Program (TP)—that aim to identify and provide targeted supports to students in transition from middle school to high school.

In 2018, SFUSD and the John W. Gardner Center for Youth and their Communities at Stanford University came together to conduct research to better understand which students are identified by the initiatives, how they are supported and what their educational outcomes are, as well as what factors facilitate or limit the implementation of the initiatives. The research design includes longitudinal analysis of students' administrative data, a survey of and interviews with district and school personnel, document review, and making-meaning meetings between researchers and district staff. The study is still underway. This brief summarizes learning to date.

About the Initiatives: Goals, Identification Process, and District Support

First established in 2010-11, the EWI initiative aims to identify students who are at risk of dropping out—as inferred by their eighth grade attendance rate and GPA—with the goal of providing the students the supports needed to bring them to graduation. The district's Achievement Assessments Office identifies students in the spring of eighth grade based on an analysis of students' administrative data. Two years ago, in support of the EWI initiative, the district created a policy to guarantee the initial school assignment for EWI students, even if the student's family does not register them at that site during the first registration period.

Since its inception in 2009-10, the TP aims to facilitate the smooth transition of vulnerable youth from middle to high school. In the spring of eighth grade, school staff—including social workers, counselors, wellness center staff, and sometimes others—identify students for the TP based on their familiarity with their challenges, strengths, and needs. These staff complete a form for each identified student that is shared with the counselors, social workers, wellness center staff, and others at the receiving high schools. Furthermore, the district's Office for School Health Programs brings together selected school staff members involved in creating and receiving the transition forms for a one-day "round robin" to discuss the cases of identified students. The district also

expects that Student Assistance Program (SAP) teams will meet within the first several of weeks of high school to discuss students who are on the TP list.

Even though the two lists of identified students are created at different levels of the system (EWI at the district, and TP by school sites), the district distributes one merged list of identified students to each high school. This list includes the names of the students who are expected to enter that school in ninth grade, as well as the initiative that the student was identified by. A list of supports recommended for students who are identified by either one of the initiatives was created by the district and distributed to schools.

Who is Identified?

The two initiatives target students differently. The EWI identifies any student whose eighth grade first semester GPA is less than 2.0 and/or attendance rate is less than 87.5%. (Yet, our study of the district's administrative data suggests that these criteria may not be implemented with full fidelity.) In contrast to the objective criteria used by the EWI, the TP employs more subjective criteria for identification. That is, middle school staff use their professional training and familiarity with students and their families to identify students they believe will most benefit from additional support during school transition. When asked in a survey about their most typical students, middle and high school staff (N=47) pointed at the following broad categories driving identification: family context (54%), student behavior (37%), academic performance (28%), student mental health (24%), and school attendance (22%). Nevertheless, the reasons for identification are many, and survey respondents were also able to point to atypical cases for identification. This includes students who "fly under the radar"—those who are at-risk academically due to a mental health challenge or conditions in their home life, but who do not typically externalize behavior that would catch the attention of school staff. The survey responses suggest to us that, because the TP is based on human judgment and the composition of the student body at each school is unique, the characteristics of "typical" and "atypical" students identified for the TP are often very much alike.

To further investigate the demographics of students identified by both initiatives, we analyzed student administrative data for the years 2010-11 through 2013-14 and 2015-16 combined, focusing on students in eighth grade and following them into high school. Of all the eighth grade students in our student population of study (N=18,100), 14% (n=2,483) were identified by the EWI and 12% (n=2,196) were identified by the TP. There was some overlap in identification: 6% of the students (n=1,121) were identified by both initiatives. See figure 1.

Figure 1. Comparing TP and EWI Students for 8th Grade Cohort
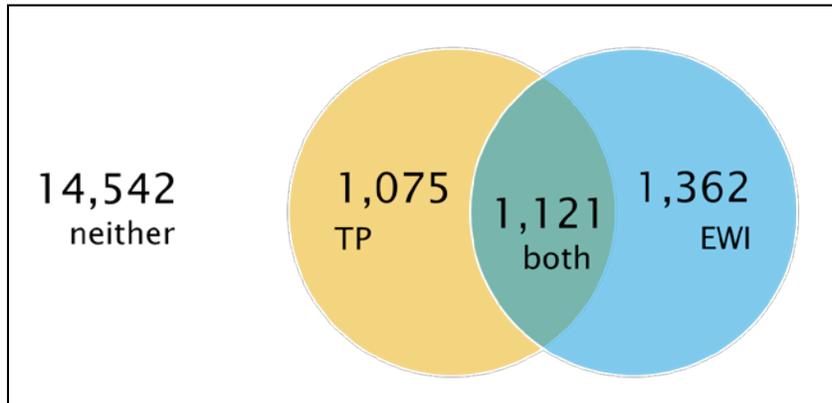
Note: Students were identified by the programs in 2010-11 through 2013-14 & 2015-16, when they were in 8th grade.

Both initiatives identified a larger percentage of males than their representation in the student population (61% by EWI, 58% by TP). Also, relative to their representation in the student population, Hispanic and Black students were about two times more likely to be identified by either one of the initiatives, whereas Asians were three times less likely to be identified. Only a portion of migrant, foster, homeless, or students with special needs were identified by the initiatives. For example, 35% of eighth grade homeless students were identified by the TP. See figure 2.

Figure 2. Percent of Small Group Identified by Program
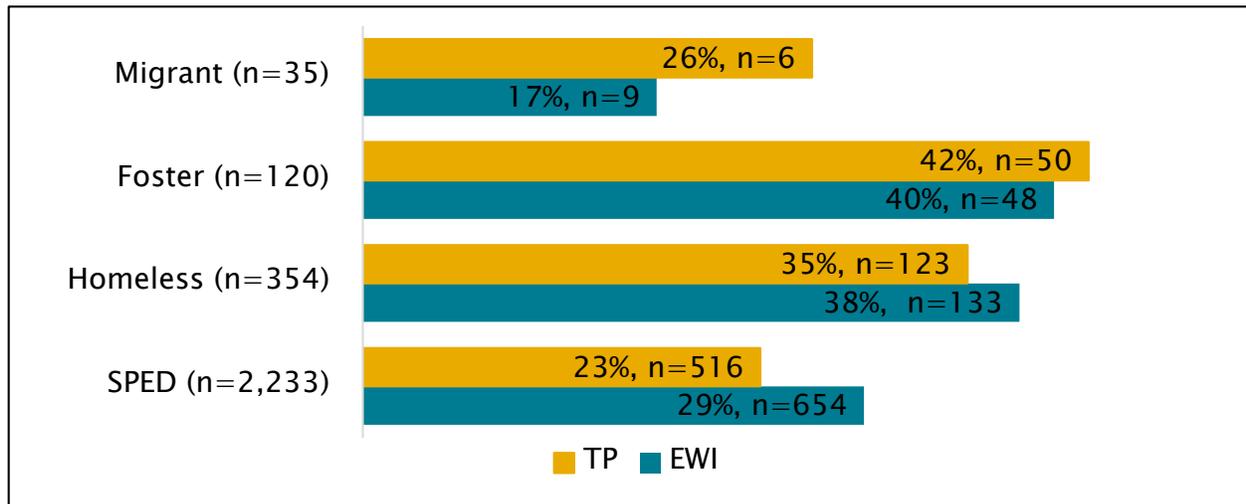
Note: Migrant and homeless data are only available for the 8th grade cohorts of 2013-14 and 2015-16.

Relative to their size in the population, English learners were identified at a higher rate by the initiatives: 25%, compared with 17% of English learners in the student population. RFEP students—i.e., those whose native language is other than English but who were deemed fluent in English by the eighth grade—were less likely to be identified by the initiatives: 20% by both initiatives, compared with 35% of RFEPs in the student population. Compared to their peers, the eighth grade attendance rate and GPA of students identified by the initiatives were lower, and EWI students (who are identified based on these measures) scored the lowest. The average daily

attendance rate of EWI students in eighth grade was 84% (87% for TP students), and their average GPA was 1.8 (2.2 for TP students). The average daily attendance rate for those students who were not identified by either initiative was 96%, and the average GPA was 3.4. Also, 18% of the students identified by the EWI and 20% of those identified by the TP were suspended at least once during the eighth grade, compared with 2% among those students who were not identified.

What Supports Are Provided?

The intent behind both of the initiatives is to identify students who would benefit the most from receiving targeted support in the earliest phase of high school. The district has compiled and distributed a list of promising practices to support students around the time of transition. The domains of this list include creating a welcoming school environment, supporting students to develop positive attendance habits, effectively triaging students identified by the TP, and outlining practices and supports for students and families starting out at a new school. It is reasonable to assume that the number of incoming identified students also affects the supports that schools offer to identified students in the first weeks and months of school. The administrative data we analyzed showed that the number and rate of identified students entering high school vary. In 2016-17, the number of incoming ninth graders per high school site who were identified by the two initiatives combined ranged from 0 to 96, representing up to 46% of the full incoming ninth grade population in a school.

Our analysis of survey data revealed that some schools implement a wide range of these promising practices, some only a subset, and others very few. Furthermore, survey respondents shared that, for the most part, supports are either provided to all incoming freshmen or provided to all students in need. These widely available supports include: summer "step up" programs, orientation events and welcome materials, introductory presentations from Wellness staff, information about school behavior expectations, assistance signing up for afterschool programs, meetings with students/families about concerning attendance patterns, information for families about how to support learning at home, mindfulness/meditation practice, and restorative circles. However, survey respondents at high schools identified three supports as available more often for EWI or TP students:

- School support staff meet individually with new students and/or families to get to know them soon after the school year begins;

- Students participate in success groups (e.g., Project Arrive) that focus on areas such as goal setting, healthy habits, navigating a new school environment, and more; and

- School staff triage students who need support based on perceived urgency of need.

Survey respondents also shared information about how seamless it is for students to connect with supports. About 65% of the respondents replied that students flagged by either of the initiatives connect with supports either "often" or "almost always;" another 30% said that students "sometimes" connect with supports. When considering barriers that "often" or "very often" stand in the way of students connecting with supports, "insufficient staff time" and "support not offered" were the two most common barriers (36% and 28%, respectively). Respondents reported that schedule conflicts were a valid barrier that at least sometimes (66%) stands in the way of students connecting with recommended supports. In the upcoming months, we will interview school

personnel and analyze a quantitative database that tracks students' support. We hope this will enhance our understanding of supports offered to and accessed by students.

What Are the Outcomes for Identified Students?

Ninth Grade

On average, all students in ninth grade showed declines in their attendance rate and GPA, compared to their performance in eighth grade; however, TP- or EWI-identified students showed greater declines in attendance rate. The rate of average daily attendance decreased 7.6 and 8.5 points for EWI and TP students, in this order, and only 1.9 points for students who were not identified by the initiatives. Decreases in GPA were between .3 and .4 points for all students in ninth grade; yet, proportionally to their eighth grade GPA, the decline experienced by EWI students was the greatest. EWI and TP students also demonstrated lower achievements on the California Standardized Tests (CSTs), scoring, on average, .7 to .9 standard deviation points below the mean of zero in math, English language arts, and science. Their non-identified peers scored, on average, .2 standard deviation points above the mean of these assessments. Students identified by the initiatives are 11 to 12 times more likely to be suspended and 5 times more likely to transfer schools in the ninth grade. Among identified students, and relative to their representation within the group of students identified by the initiatives, Asian students are less likely, but Black students are more likely, to transfer schools during the ninth grade.

Twelfth Grade

Among all English learner students in eighth grade, reclassification into fluency in English by twelfth grade is less likely for identified students: Only 37% of EWI English learner students (and 40% of TP English learner students) reclassified by twelfth grade, compared to a 58% reclassification rate for non-identified English learners. The path to high school graduation is more insurmountable for identified students compared to their peers. About 10% of identified students do not continue their educational path at the district in the tenth grade. By eleventh grade, the rate of participation drops to 74% and then to around 60% by twelfth grade. Eventually, about 40% of the ninth grade incoming cohort of identified students graduate from the district, and only 6% (EWI) to 14% (TP) are eligible for admission to California's public higher institution systems (i.e., CSU and UC). Causal estimates from a regression discontinuity design suggest that students who were just eligible for EWI (i.e. students with an eighth grade average daily attendance rate just below 87.5%) were not significantly more likely to graduate than students who were just ineligible for EWI (i.e. students with an attendance rate just above 87.5%).

Final Notes

The EWI and TP initiatives seek to identify and support students on the cusp of high school transition using identification criteria (EWI) or guidelines (TP). Analysis of students' demographics and academic participation demonstrated that, on average, students identified by the initiatives are fairly similar. Indeed, some students are identified by both initiatives. Yet, it is puzzling that some students who are identified by the EWI initiative—due to concerning academic participation (as proxied by their attendance rate and GPA)—are not also identified by the TP initiative, particularly since we can assume that their academic participation is affected by challenging circumstances, similar to those experienced by TP-identified students. There are likely a range of

reasons why these students are not identified by the TP initiative. For example, staff may be less familiar with the challenging circumstances faced by an EWI student, or may make a professional decision not to prioritize an EWI student for whom to complete a TP form. We hope to gain clarity on this through interviews at school sites. Also, the district could lead further inquiry at school sites to evaluate the magnitude of EWI students whom school staff might be unfamiliar with, and to shed additional light onto school practices of student identification and support.

The intent underlying both of the initiatives is that students will be served by the high schools, either directly or through referral. However, the resources and effort required to provide that support varies widely by school, depending on the number of identified students entering each year. For schools receiving larger numbers and/or higher rates of identified students, group supports could be considered an important component of the offerings for students. However, given the extremely wide range of circumstances that lead students to be identified, there is a question regarding the degree of fit between the particular need of a student and group support available at school site.

The extent to which supports are offered, their type, and the fit between available supports and students' needs is still under investigation by the project.

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