Executive Summary

A series of statistical analyses were used to examine the relationships between staff's self-reported SEL implementation on the 2016 WCSD Staff Climate Survey and their students' self-reported social and emotional competencies. The following describes the key findings from this series of analyses.

Staff Attitudes towards SEL
- Staff at Beacon schools were significantly <u>more likely</u> to say that their school was following an established written social and emotional learning curriculum, compared to all other cohorts. They were also significantly <u>less likely to not know</u> if they were following an established SEL curriculum compared to other cohorts.
- Staff at Beacon, Cohort 1 and Cohort 3 were significantly <u>more likely</u> to report feeling confident in their ability to implement SEL than other cohorts. Staff at Beacon schools reported the highest confidence to implement SEL compared to all other cohorts.
- Although not statistically significant, staff at Beacon schools overall reported the most favorable attitudes towards SEL compared with staff from other cohorts.

Student Social and Emotional Competencies
- Overall, schools with staff who reported high confidence to implement SEL had students with significantly higher self-reported Self-Management of Goals, and Self-Management of School Work, compared to schools who had low confidence to implement SEL. These findings held up even after statistically controlling for other factors that predict students' social and emotional competencies, including student gender, and ELL, FRL, and IEP statuses.
- The relationship between staff confidence to implement SEL was not significantly related to students' other six SECs, including Self-Awareness of Self-Concept, Self-Awareness of Emotions, Self-Management of Emotions, Relationship Skills, and Responsible Decision-Making.

Student Academic and Behavioral Outcomes
- There were no significant differences among cohorts on student outcomes, including suspension rates, weighted GPAs, SBAC reading and math scores, and student absenteeism, even when controlling for previous year outcomes. Said differently, Beacon schools were no more or less likely to have more positive outcomes than schools in other cohorts.
- Students who reported higher social and emotional competencies on the 2016 Student Climate Survey had significantly higher SBAC reading and math scores than students with lower self-reported competencies, even while controlling for factors known to predict student reading and math achievement (e.g. previous year's test scores, gender, ELL, FRL, and IEP statuses. All eight subscales were associated with higher reading and math scores.
- Four of the eight competencies (self-management of emotion, self-management of goals, self-management of school work, and relationship skills) were positively

associated with higher attendance (grades 5, 6, 8 and 11) and higher GPAs (grades 8, 11)
- Five competencies (self-management of emotion, self-management of goals, self-management of school work, relationship skills, and responsible decision-making were associated with reduced likelihood of having been suspended.

Methodology

In 2016-2017, the Office of Accountability began conducting a broad-based evaluation of social and emotional learning in the district. This report represents one component of that evaluation effort, and focuses primarily on trying to gauge the impact of SEL training and support on staff attitudes towards SEL implementation, student social and emotional competencies, and student academic and behavioral outcomes.

Data sources for these analyses included the following:

- ***Staff Attitudes about SEL Implementation***: Responses from staff on the 2016 Staff Climate Survey were used as outcome variables assessing staff's attitudes about how SEL was progressing at their school site. The Staff Climate Survey is administered annually to all school-based staff in the district. District-wide, this survey has a response rate of 68% from XXXX staff members.

- ***Student Social and Emotional Competencies***: Students in grades 5, 6, 8, and 11 are asked 40 questions on the annual Student Climate Survey about their social and emotional competencies. The 40 questions assess eight areas of social and emotional competence: Self-Awareness of Self-Concept, Self-Awareness of Emotions, Self-Management of Emotions, Self-Management of Goals, Self-Management of School Work, Relationship Skills, and Responsible Decision-Making. Students are asked to rate how easy or difficult (1 = Very Difficult, 2 = Difficult, 3 = Easy, 4 = Very Easy) each of the 40 statements are for them. District-wide, this survey has a response rate of 82% from XXXX students.

- ***Student Outcome Data***: Student identifiers are collected on the Student Climate Survey to allow for analyses of student social and emotional competencies with key academic, behavioral, and demographic variables. Outcome analyses examined the relationship between SEC's and students' Smarter Balanced reading and math scores (5th and 8th grade only), attendance rates, GPA (8th and 11th grade only).

Using a series of multi-level analyses, we first examined whether schools who have been implementing SEL longer differ from those who began implementing SEL more recently (i.e., SEL cohort) differ in terms of staff perceptions of SEL. In addition, in 2015-2016, six schools were identified as "Beacon" Schools for their strong commitment to school-wide implementation of SEL. Appendix A shows the timeline of school implementation in WCSD. We then examined whether any differences in students' self-reported SECs varied across school SEL cohort. Then, we examined whether or not students' self-reported SECs were related to academic and behavioral outcomes.

Staff Attitudes towards SEL

SEL Cohort: School SEL cohort was coded as 6 (Beacon Schools), 5 (Year 1 Cohort), 4 (Year 2 Cohort), 3 (Year 3 Cohort), 2 (Year 4 Cohort) and 1 (Year 5 Cohort). High Desert Montessori, Innovation High School, North Star Online School, Rainshadow Community Charter, and Turning Point were not included in the analyses.

Cohort	Student N	Staff N
1	1632	758
2	538	340
3	992	606
4	1199	592
5	2300	1136
Beacon	744	306

Staff Awareness of SEL Curriculum

The Staff Climate Survey presents several questions regarding staff attitudes towards, knowledge of, and confidence to implement SEL at their school. One question is, "Does your school follow an established written social and emotional learning curriculum?" Figure 1 below reports the results of this question by cohort.

We collapsed the responses, "Yes in all grade levels" and "Yes in some grade levels" into one overall 1 (*Yes*) response to compare them to 2 (No not for any grade level) and 3 (I don't know). We ran a multinomial multilevel analysis and found an overall effect of cohort, $F(10, 3599) = 15.11$, $p < .001$ on the likelihood of staff reporting that their school was implementing an established written social and emotional learning curriculum. When looking at the relative probability of reporting "Yes" or "No" to that question, all cohorts except for Cohort 3, $p = .08$, were more likely to say they were *not* implementing an established SEL curriculum compared to Beacon schools, $ps < .01$. When looking at the relative probability of reporting "Yes" or "Don't Know," staff at non-Beacon schools were significantly more likely to report that they did not know if they had an SEL curriculum in place, compared to staff at Beacon schools $ps < .01$.

Thus, staff from Beacon schools are more likely to report that their school has an established written SEL curriculum and less likely to report not knowing if their school has an established written SEL curriculum than other schools.

Figure 1. Does your school follow an established written social and emotional learning curriculum?

Legend: ■ % Yes, in all grade levels ■ % Yes, in some grade levels ■ % No, not for any grade level ■ % I don't know

Staff Confidence to Implement SEL

We then examined staff responses to the question, "I feel confident in my ability to implement the social and emotional learning curriculum that has been adopted at my school." Figure 2 below reports the results of this question by cohort. Using ordinal multilevel analysis examining the Likert Scale Responses ranging from 1 (Strongly Disagree) to 4 (Strongly Agree; with 5 "Not Sure" coded as missing) we found that that the overall effect of school cohort status was significant, $F(5, 1907) = 3.03$, $p = .01$. Neither the Year 1 cohort, $p = .07$, nor the Year 3 cohort, $p = .11$, differed from Beacon schools. All other cohorts were significantly less likely to feel confident in their ability to implement SEL, $bs < -0.52$, $ps < .04$, than Beacon schools.
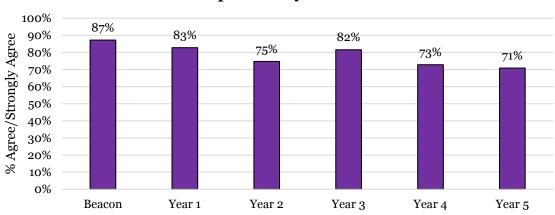
Figure 2. I feel confident in my ability to implement the social and emotional learning curriculum that has been adopted at my school.

Staff Perceptions of SEL Culture at Their School

The staff climate survey also asks a series of 8 questions such as, "The adults in this school interact with one another in a way that models social and emotional competence," which

tap into the SEL culture of the school. Figure 3 below reports the results of these responses by cohort. A linear multilevel analyses on the aggregated scale score items (α=.93) revealed an effect of school cohort status, $F(5, 80.11) = 3.88$, $p = .003$. However, the only cohort that significantly differed from the Beacon schools was the Year 5 cohort, $b = -0.28$, $se = 0.10$, $p = .01$; all other $ps > .07$.
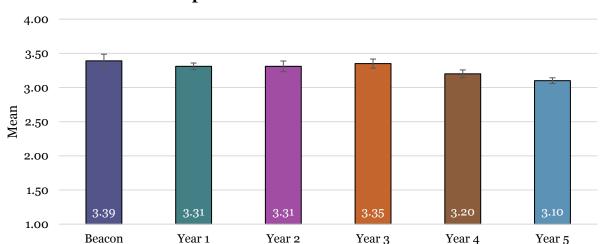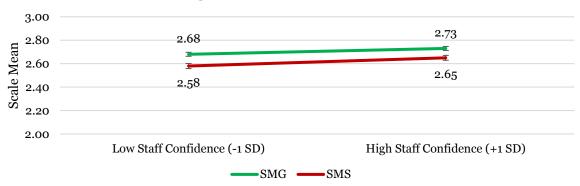
Figure 3. Staff Attitudes about the Culture of SEL Implementation at Their School

Student Social and Emotional Competencies

Students' self-reported social and emotional competencies (SECs) are assessed annually on the WCSD Student Climate Survey, administered in grades 5, 8, and 11. The SECs are reported Eight separate analyses were run examining the relationship between school cohort status with each SEC subscale, while controlling for student gender, and ELL, FRL, and IEP statuses. Results showed that school cohort status did not have an impact on any SECs, $ps > .18$.
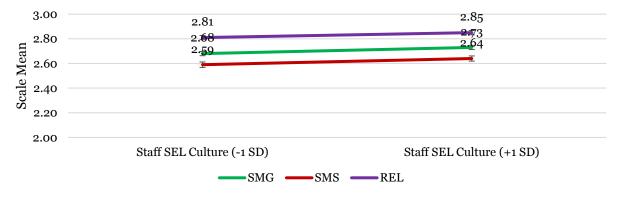
We examined whether staff perceptions of SEL influenced students' self-reported SECs. We found **that schools with greater staff confidence in their ability to implement SEL had students with significantly higher self-reported self-management of goals**, $F(1, 78.18) = 5.37$, $b = 0.07$, $p = .02$, **and self-management of schoolwork skills**, $F(1, 91.83) = 9.56$, $b = 0.13$, $p = .003$, than schools with lower confidence; all other $ps > .16$.

Figure 4. Staff confidence to implement SEL by students' self-seported Self-Management of Goals (SMG) and Self-Management of School Work (SMS)

Likewise, **schools with more positive staff perceptions of the SEL culture had students who reported greater self-management of goals**, $F(1, 81.02) = 5.25$, $b = 0.09$, $p = .03$, and self-management of schoolwork, $F(1, 91.76) = 4.45$, $b = 0.12$, $p = .04$, and relationship skills, $F(1, 88.59) = 4.81$, $b = 0.09$, $p = .03$; all other $ps > .22$. Staff knowledge of an SEL curriculum was not associated with student SECs, $ps > .23$.

Figure 5. Staff attitudes about the culture of SEL at their school by students' self-reported self-management of goals (SMG), Self-Management of School Work (SMS), and Relationship Skills (REL)

Student Academic and Behavioral Outcomes by Cohort

Three questions about the impact of Social and Emotional Learning were examined through a series of multi-level models. The results of these analyses are described beneath each question about impact.

Question 1: ***Do Beacon Schools have higher SBAC reading and math scores, absenteeism, or suspension rates than non-Beacon schools?***

We first examined whether students' academic and behavioral outcomes differed as a function of their school cohort status and whether this relationship was stronger when staff were aware of an SEL curriculum, perceived that their school supported SEL, and were more confident implementing SEL.

Multi-level linear analyses were run to determine whether SEL cohort predicted students' SBAC reading and math scores, Days Absent, and weighted GPA. Binomial logistic regression analyses were also run to examine whether a school's SEL cohort predicted student suspension rates, controlling for students' previous years' outcome, gender, and ELL, FRL, and IEP statuses.

We found that no student academic or behavioral outcomes varied by a school's SEL cohort status, *ps* > .29. That is, Beacon schools did not have higher or lower reading or math SBAC scores, student absenteeism, or suspension rates than other cohorts, after controlling for last year's academic and behavioral outcomes.

Question 2: ***When cohorts have staff who are more aware of SEL curriculum, perceive support for SEL among staff, and are more confident to implement SEL, do they have more positive student outcomes?***

Staff awareness of having their SEL curriculum (school average between 0 = No and 1 = Yes; M = 0.82, SD = 0.20) moderated the relationship between cohort status and suspension rates, $F(5, 777) = 5.30$, $p < .001$; all other *ps* > .43. At high levels of staff awareness of an SEL curriculum (+1 *SD*), the 4th SEL cohort had significantly higher suspension rates than the Beacon schools, $b = 1.45$, $p = .01$; all other *ps* > .10. At low levels of staff awareness (-1 *SD*), the cohorts did not significantly differ from the Beacon schools, *ps* > .25. Neither staff perceptions of SEL culture, *ps* > .66, nor staff confidence in their ability to implement SEL, *ps* > .08 , altered the relationships between school cohort status and student outcomes.[1]

Relationship between Individual Student Social and Emotional Competencies and Their Academic and Behavioral outcomes

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[1] Note: The model examining the two-way interaction between school cohort status and staff confidence on suspension rates did not run.

Question 3: ***Regardless of cohort, do students with higher SECs, in general, have improved academic and behavioral outcomes than students with lower SECs?***

Finally, we examined the relationship between students' SECs and their academic and behavioral outcomes while controlling for students' previous years' outcome, gender, and ELL, FRL, and IEP statuses. Linear analyses were run for SBAC scores, Days Absent, and weighted GPA. Binomial analyses were run to examine suspension rates.

SBAC Scale Scores

All scales were significantly associated with students' SBAC reading scores, b's > 3.83, p's < .001, and students' SBAC math scores, b's > 3.30, p's < .012.

Days Absent

Across the eight subscales, greater Self-Management of Emotion, b = -0.26, se = 0.12, p = .03, Self-Management of Goals, b = -0.38, se = 0.12, p = .002, Self-Management of Schoolwork, b = -0.53, se = 0.12, p < .001, and Relationship Skills, b = -0.33, se = 0.14, p = .02, were associated with fewer days absent, all other p's > .18.

Weighted GPA

Across the eight subscales, greater Self-Management of Emotion, b = 0.05, se = 0.02, p = .03, Self-Management of Goals, b = 0.08, se = 0.02, p = .001, Self-Management of Schoolwork, b = 0.14, se = 0.02, p < .001, and Relationship Skills, b = 0.05, se = 0.03, p = .05, were associated with higher weighted GPA, all other p's > .23.

Suspensions

Across the eight subscales, greater Self-Management of Emotion, b = -0.41, se = 0.13, p = .002, Self-Management of Goals, b = -0.29, se = 0.11, p = .01, Self-Management of Schoolwork, b = -0.71, se = 0.11, p < .001, Relationship Skills, b = -0.71, se = 0.12, p < .001, and Responsible Decision-Making, b = -0.72, se = 0.11, p < .001, were associated with lower likelihood of having been suspended, all other p's > .12.