



# Positive Behavioral Interventions and Supports (PBIS): *Year-Two Tier I Evaluation*

December 2022

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# Introduction

## Background

Positive Behavioral Interventions and Supports (PBIS) is an implementation framework that facilitates the selection and use of evidence-based practices and interventions within a tiered system of support.<sup>1</sup> Specifically, PBIS offers a framework to support students academically, socially, emotionally, and behaviorally through universal practices for all students (Tier I), targeted practices for students in need of additional support (Tier II), and indicated practices for individual students who need support beyond what is provided by both Tier I and Tier II supports (Tier III).<sup>2</sup> According to the National Technical Assistance Center on PBIS, the “broad purpose of PBIS is to improve the effectiveness, efficiency, and equity of schools.”<sup>3</sup> The PBIS website also indicates that “PBIS improves social, emotional, and academic outcomes for all students, including students with disabilities and students from underrepresented groups.”

VBCPS has employed PBIS practices in a variety of capacities since the 2012-2013 school year, although the models guiding implementation have varied and schools’ participation in the various models of implementation has varied. During the 2012-2013 school year, one elementary school began participating in an initiative through the Virginia Department of Education (VDOE) called Virginia Tiered Systems of Supports (VTSS), which provides support at the division level through grant funding and technical assistance. VBCPS also participated in the Multi-Tiered System of Supports – Behavior (MTSS-B) study from 2015-2016 through 2016-2017, which provided funding for school-based coaching support and professional development for school-level coaches. Beginning in 2017-2018, the current VBCPS model of implementing PBIS began, which involved embedded PBIS school-level coaching. Every VBCPS school implementing PBIS is assigned a divisionwide PBIS coach.

Schools were assigned to cohorts based on the various models of implementation over the years as well as the schools’ needs according to discipline data, school climate surveys, and input from the Department of School Leadership. Schools that were determined to be most in need were assigned to cohorts scheduled to implement PBIS Tier I practices earlier than other schools. Table 1 summarizes the number of schools in each cohort including the implementation year and the model of implementation.

**Table 1: PBIS Cohorts**

PBIS Cohort	Number of School Sites <sup>4</sup>	Implementation Year(s)	Initial Implementation Model
Cohort 1	6 elementary schools	2012-2013 through 2015-2016	MTSS-B
Cohort 2	14 schools (4 elementary, 6 middle, 4 high)		Some state support
Cohort 3	19 schools (16 elementary, 3 middle)	2017-2018	VBCPS coaching model
Cohort 4	21 schools (17 elementary, 4 middle)	2018-2019	VBCPS coaching model
Cohort 5	24 schools (13 elementary, 3 middle, 8 high)	2019-2020	VBCPS coaching model

\*Cohorts 1 and 2 transitioned to the VBCPS coaching model beginning in 2017-2018.

## Background and Purpose of Program Evaluation

After being selected for evaluation by the Program Evaluation Committee in summer 2018, the School Board approved PBIS for an evaluation readiness report on September 11, 2018. During the 2018-2019 school year, the evaluation plan was developed with the program managers, including the goals and objectives that would be assessed. The recommendation from the evaluation readiness report was that PBIS undergo a three-year



evaluation with a focus on Tier I PBIS implementation and outcomes in 2019-2020 and 2020-2021 and a focus on implementation and outcomes of PBIS Advanced Tiers in 2021-2022. The recommended evaluation plan was presented to the School Board September 10, 2019 and was approved September 24, 2019. The year-one evaluation of Tier I began in 2019-2020, but due to the COVID-19 pandemic and resulting school building closure in March 2020, data collection efforts could not be completed, and the year-one evaluation was postponed to 2020-2021. The other two years of the evaluation were also adjusted accordingly. A status update was provided to the School Board in December 2020 for the 2019-2020 school year. The year-one evaluation was presented to the School Board November 23, 2021. The recommendations included continuing the program with modifications; continuing to support high schools in implementing core Tier I PBIS practices, including providing professional learning on PBIS topics and ensuring students are taught expectations; ensuring schools are implementing PBIS practices and procedures consistently across classrooms; and providing protocols for and encouraging time allocation for staff to review schoolwide data to inform decision making at the secondary levels. The School Board approved these recommendations December 7, 2021.

The purpose of this year-two evaluation during 2021-2022 was to continue to assess the PBIS Tier I implementation and related outcomes. The evaluation provides information about the divisionwide implementation plan; staff familiarity with and understanding of PBIS; the components of Tier I PBIS practices, including progress toward goals related to implementation fidelity and professional learning; alignment between PBIS and other division initiatives; demographic characteristics of schools by PBIS fidelity group; progress toward PBIS outcome goals; relationship between PBIS implementation and student academic achievement, disciplinary referrals, disciplinary outcome decisions, and teacher retention; and cost to the school division. Information about steps taken regarding the recommendations from the year-one evaluation were also addressed in appropriate sections of the report.

## **PBIS Initiative Overview**

The PBIS framework to support students includes Tier I, Tier II, and Tier III practices. The National Technical Assistance Center of PBIS has recommended several general procedures and practices that have been shown to be effective when implementing PBIS. These suggestions are provided for each tiered level of support and are the basis of PBIS fidelity measures created by the National Technical Assistance Center of PBIS, such as the Tiered Fidelity Inventory (TFI).

At the Tier I level, supports are universal (i.e., provided to all students) and form the basis for a school's PBIS framework. At this level, key practices include the following: schoolwide positive expectations and behaviors that are defined and taught, procedures for establishing classroom expectations and routines consistent with schoolwide expectations, continua of procedures for encouraging expected behavior and discouraging problem behavior, and procedures for encouraging school-family partnerships.<sup>5</sup>

For students who need additional support beyond what is provided at the Tier I level within PBIS, additional interventions can be provided at the Advanced Tiers (Tier II and Tier III). Tier II interventions focus on approximately 15 percent of students who need additional support beyond Tier I practices and are at risk of more serious behaviors. Tier II supports generally involve a broader range of group interventions, which can include social skills groups, self-management, and academic supports. Key components of Tier II interventions that are likely to demonstrate positive effects include continuous availability, rapid access, efforts that are not labor intensive for teachers, consistency with the schoolwide expectations, implementation by all staff within a school, intervention that is flexible based on assessment data, allocation of adequate resources, student desire to participate, and continuous monitoring of data.<sup>6</sup>

Tier III interventions focus on approximately 1 to 5 percent of students who need support beyond what is provided by both Tier I and Tier II supports. Tier III interventions are more intensive and highly personalized for

each student and are handled in a team approach. The foundational systems involved in providing Tier III interventions include having a multi-disciplinary team, including someone with expertise in behavior support, and collecting intervention fidelity and student outcome data.<sup>7</sup> Additionally, Tier III key practices include completing functional assessments, providing wraparound supports, and considering the local and school environment along with the student's personal learning histories.<sup>8</sup>

Rather than requiring that specific interventions be implemented, PBIS provides suggestions for elements to consider when making decisions regarding interventions and practices as well as general procedures and practices across the tiered system of support. The National Technical Assistance Center of PBIS advises that successful PBIS implementation involves the interplay of four key elements when making all decisions.<sup>9</sup> These key elements are data, outcomes, practices, and systems. Data must be considered so that stakeholders know what information is needed to improve decision making. Student outcomes should be considered as it relates to what students need to exhibit when they are successful academically and behaviorally. Teacher and administrator practices must be considered to determine what supports are benefiting students. Finally, the internal systems that impact the educators in their use of evidence-based practices should be considered. These systems can include such things as teacher working groups, data decision rules, professional development offered, coaching supports provided, and school leadership teams.

## Program Goals and Objectives

As a result of the evaluation readiness process during 2018-2019, PBIS division goals and objectives were outlined in collaboration with program managers following a review of relevant literature. As a result of the evaluation readiness process, there was a total of 12 goals and 36 objectives for the PBIS evaluation, including 4 goals for Tier I implementation, 4 goals for Advanced Tiers implementation, and 4 goals for outcomes. The implementation goals focused on behavioral expectations for students and staff and policies and procedures, professional learning for staff, data review and usage, stakeholder involvement, and providing effective Advanced Tiers interventions and supports. The student outcome goals focused on school engagement, perceptions of safety and discipline procedures, emotion regulation, and perceptions of school climate.

## Evaluation Design and Methodology

### Data Collection

The evaluation included mixed methodologies to address each of the evaluation questions, including the goals and objectives. Quantitative data were gathered through the VBCPS data warehouse where needed and through closed-ended survey questions. Qualitative data were collected through discussions with the program managers, document reviews, and an open-ended survey question. The Office of Research and Evaluation evaluators used the following data collection methods:

- Communicated with the PBIS specialist and psychological services coordinator to gather implementation-related information.
- Reviewed VBCPS PBIS program documentation.
- Collected data from the VBCPS data warehouse related to student demographic characteristics, attendance, academic achievement (i.e., Reading Inventory, English and math SOLs), and student discipline (i.e., discipline referrals and suspensions).
- Administered PBIS surveys to classroom teachers, building administrators, other school instructional staff (e.g., school counselors, math and reading specialists), students in grades 4 through 12, and parents of students in kindergarten through grade 12.

- Gathered aggregate data from the student VBCPS Social-Emotional Learning (SEL) survey at the division and individual school levels.<sup>10</sup>
- Gathered teacher retention data from the Department of Human Resources.
- Obtained division level implementation-related data using the District Capacity Assessment (DCA) and implementation fidelity data for individual schools using the Tiered Fidelity Inventory (TFI).
- Obtained comparable school groupings from the 2021-2022 Comparable School Analyses.
- Obtained information about school goal areas for PBIS from the Department of Teaching and Learning's Office of Student Support Services.
- Gathered cost data from the departments of Teaching and Learning and Human Resources.

### VBCPS Data Warehouse

Quantitative data collected from the VBCPS data warehouse included student demographic characteristics, attendance data, academic achievement data, and discipline data. For demographic characteristics and attendance, data were based on students in prekindergarten through grade 12 because all grades in schools could have potentially been impacted by schoolwide PBIS practices. Reading Inventory data were based on students in grades 3 through 9 because these are the primary grades at which the assessment is administered. English and math SOL data were based on students who took the assessment in grades 3 through 12. Discipline data included referral and suspension data for students in prekindergarten through grade 12, including average referrals and suspensions per student, percentage of enrolled students with at least one referral, and percentage of referred students with at least one suspension.

### Surveys

#### PBIS Survey

As part of a larger survey effort of multiple initiatives, the Office of Research and Evaluation invited teachers, administrators, other school instructional staff (e.g., school counselors, math and reading specialists), students, and parents to complete survey items regarding their perceptions of PBIS. Staff and parents received an email invitation with a link to participate in the online survey in April 2022. Students accessed the survey through a link on their ClassLink dashboard in April 2022.

Of the teachers, administrators, and other school instructional staff invited to complete the survey, 35 percent of teachers, 55 percent of administrators, and 29 percent of other instructional staff completed the survey.<sup>11</sup> Of the students in grades 4 through 12, 67 percent completed the survey. Of the parents of students in kindergarten through grade 12 invited to take the survey, 13 percent completed the survey. See Table 2 for response rates by school level.

**Table 2: Staff, Student, and Parent Survey Response Rates by Level**

Group	Elem	Middle	High	Overall Rate	Overall Number of Respondents
Teachers	27%	47%	39%	35%	1,526
Administrators	58%	66%	45%	55%	137
Other Instructional Staff	28%	35%	27%	29%	549
Students (Grades 4-12)	69%	76%	60%	67%	30,591
Parents (Grades K-12)	13%	13%	12%	13%	8,786

For all stakeholders, survey agreement percentages reported in the evaluation are based on those who answered the survey item (i.e., missing responses were excluded from the percentages). Survey results presented in this evaluation focus on data collected in spring 2022 unless otherwise noted. There were several factors that impacted any comparison of survey results from 2021-2022 with prior years. For example, in 2020-2021, approximately 43 percent of students attended school virtually due to the COVID-19 pandemic

with most students returning for in-person instruction during 2021-2022. In addition, during 2021-2022, there was a continued impact of the pandemic especially related to staffing challenges. Due to these factors, there was an overall trend of declines in survey agreement percentages across divisionwide surveys from 2020-2021 to 2021-2022.

### **Student SEL Survey**

Students in grades 4 through 12 were invited to participate in the spring administration of the Social-Emotional Learning (SEL) Survey in March and April 2022. This survey included items aligned with the five SEL competencies: self-awareness, self-management, relationship skills, social awareness, and responsible decision making. The survey was administered as an anonymous survey for the majority of schools, although students at 19 schools completed a student-identifiable survey. Parents of students at the schools administering the student-identifiable survey could opt their child out of completing the survey. All student data regardless of administration type were included in the analyses.<sup>12</sup> Overall, 72 percent of students in grades 4 through 12 completed the spring SEL Survey. Response rates were 86 percent at the elementary school level, 86 percent at the middle school level, and 54 percent at the high school level.

### **District Capacity Assessment (DCA)**

The DCA measures the division's capacity for implementation fidelity and is completed once a year in the spring by the PBIS division implementation and leadership team members who discuss each item and come to consensus on the final score for each item. Virginia Department of Education representatives, who partner with the division on PBIS implementation through the VTSS initiative, attend the scoring session and answer any questions about the rubric. The DCA has a scoring rubric that is used to document if the division has ensured all necessary policies, procedures, and documentation are in place to support a successful implementation of PBIS. Results of the DCA are used to identify actions for the upcoming year.

### **Tiered Fidelity Inventory (TFI)**

The TFI is the assessment used by VBCPS for assessing the extent to which schools are implementing PBIS with fidelity. The use of the TFI to measure the implementation of PBIS in VBCPS is a practice that was recommended as part of VTSS. The TFI is comprised of items related to necessary administrative processes and procedures across Tier I, Tier II, and Tier III. However, schools are only assessed on the tiers they have implemented or are currently implementing. The TFI has a total of 29 items across all tiers (15 items for Tier I, 13 items for Tier II, and 17 items for Tier III).<sup>13</sup> Schools are scored on items using a three-point scale of 0 (not implemented), 1 (partially implemented), or 2 (fully implemented). The TFI has been demonstrated to have strong construct validity for assessing fidelity at each tier, strong interrater and test-retest reliability, strong relationships with other PBIS fidelity measures, and high usability for action planning.<sup>14</sup>

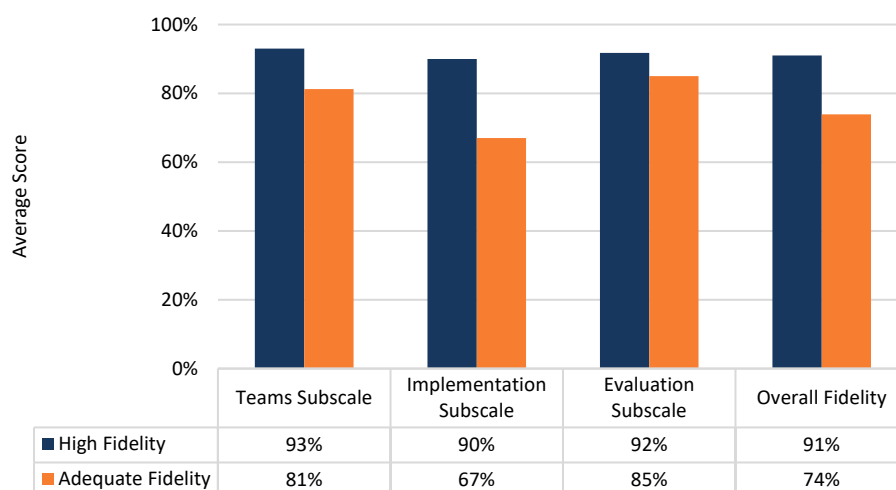
The TFI specifically for Tier I: Universal Schoolwide PBIS Features includes 15 items or "features" within three subscales including the Teams Subscale (2 items), Implementation Subscale (9 items), and Evaluation Subscale (4 items). In addition to individual item scores and subscale scores, the instrument provides an overall fidelity score. Each subscale score and the overall fidelity score represent the percentage of available points earned for the applicable items.

The PBIS TFI resource from 2014 indicated that generally, a fidelity score of 80 percent is the level of implementation that will result in improved student outcomes,<sup>15</sup> although a later 2017 resource indicated that an overall score of 70 percent or higher for Tier I is recommended for schools to be considered at or above "adequate" implementation.<sup>16</sup> Based on these research sources, for the purposes of the PBIS evaluation, schools are categorized based on their overall TFI fidelity scores as shown in Table 3.

**Table 3: Level of Fidelity Categorization Based on Overall TFI Score**

Level of Fidelity Categorization	Overall TFI Implementation Score Percentage
High Fidelity	80%-100%
Adequate Fidelity	70%-79%
Partial Fidelity	69% or below

To confirm this categorization was valid, the average TFI subscale score percentages in 2021-2022 were examined by the schools' level of fidelity. As would be expected based on schools' overall fidelity categorization, there were differences on the Teams, Implementation, and Evaluation subscales between the two groups of schools (see Figure 1). Schools in the High Fidelity group had the highest percentages on each of the subscales, followed by schools in the Adequate Fidelity group. During the 2021-2022 school year, there were no schools determined to be in the Partial Fidelity group.

**Figure 1: Average Percentage Scores on TFI Subscales and Overall by PBIS Implementation Fidelity Level**

In VBCPS, the TFI is completed by a school team along with a VBCPS PBIS coach following observations of schoolwide and classroom practices and discussions regarding the TFI items. The instrument provides a description of each item that is to be rated, possible sources of data that the team may consult for determining a rating, and scoring criteria for determining the appropriate rating. This evaluation report focuses on Tier I TFI data from the 2021-2022 school year, including scores on individual feature items, subscales, and the overall aggregate. An additional analysis examined the change of Tier I TFI data from the previous year, 2020-2021, overall and by school level. Due to all schools having at least adequate fidelity in 2021-2022, there were no analyses of data by implementation fidelity group (i.e., High Fidelity and Adequate Fidelity) included in this evaluation except for data related to student characteristics.

## Evaluation Design

The original longitudinal evaluation plan outlined in the PBIS Evaluation Readiness Report to examine the relationship between implementation fidelity and implementation and outcome data over time was impacted to a large extent by the COVID-19 pandemic. With the pandemic, all relevant TFI, survey, academic, and behavioral data were not available for the 2019-2020 and 2020-2021 school years. Therefore, a correlational method replaced the planned longitudinal evaluation design. Implementation-related and outcome-related data, largely from the PBIS survey items, were correlated with scores on the TFI for the 2021-2022 school year. The aim of the correlation analysis was to determine the extent to which ratings on the TFI from the schools'

PBIS team were related to perceptions from a wider group of stakeholders (i.e., staff and students) for an indication of the validity of the two measures used to assess implementation goals. The aim of the correlation analysis for outcome-related data was to assess the relationship between implementation fidelity and outcome measures. For correlations with subscale and aggregate TFI percentage scores, Pearson's correlation coefficients were used. For correlations with individual TFI feature items, Spearman's rank-order correlation coefficients were used due to the ordinal level of measurement (i.e., scores ranging from 0 to 2). All correlations noted in this report were statistically significant with  $p < .05$ . When correlations are noted for survey agreement percentages, results were based on the *total agreement* including "Agree" and "Strongly Agree." Other correlations with only the "Strongly Agree" percentages are noted where appropriate.

Two additional sets of analyses were used to evaluate the outcome-related data in 2021-2022. The first set of analyses was a matched school case study approach, which involved examining the perceptions of students and teachers from schools that had differing implementation fidelity (i.e., High Fidelity, Adequate Fidelity) but had other similarities, including their student demographic characteristics. Similar schools were selected based on a previously run comparable schools analysis.<sup>17</sup> The purpose of this analysis was to examine data related to the goals and objectives for comparable schools that had differing TFI fidelity.

The second set of new analyses in 2021-2022 was based on an individual school goal approach. During the 2021-2022 school year, schools were provided the opportunity to identify a PBIS-related goal or set of goals that were a focus for their school during 2021-2022. Within a Google form, schools were asked to identify their school goal/focus area, data source(s), and outcome(s). Office of Research and Evaluation staff coded the information provided in the Google form to determine which evaluation goal(s) and objective(s) aligned with the school-identified goals. Four schools had noted goals that were unable to be aligned to the goals and objectives in this evaluation. An additional ten schools did not have an identified PBIS-related goal for the 2021-2022 school year (five schools indicated they did not have a goal, five schools did not complete the Google form). Staff survey data were analyzed specifically for the items that were related to the school-specific goal. The purpose of this analysis was to examine staff survey data related to the schools' identified goal areas as a more targeted approach to assess the progress made toward meeting division PBIS goals. In addition, the individual school goal approach was also used to investigate the relationship between PBIS implementation and student academic achievement, disciplinary referrals, disciplinary outcome decisions, and teacher retention.

## Evaluation Questions

The evaluation questions for this report were developed by evaluators in consultation with program managers during the evaluation readiness process. The evaluation questions established for the year-two Tier I evaluation were as follows:

1. What is the divisionwide implementation plan (e.g., cohorts and tiered implementation) and what progress has been made on the Virginia Tiered Systems of Supports District Capacity Assessment (DCA)?
2. What was staff members' familiarity with PBIS and do staff have a shared understanding of the PBIS framework?
3. What are the components of Tier I PBIS practices and what progress was made toward meeting related goals and objectives?
  - a. PBIS Team Composition and Meetings
  - b. Schoolwide Expectations, Procedures, and Classroom Practices
  - c. Professional Learning Opportunities to Support PBIS Implementation
  - d. Data Review and Use
  - e. Student, Family, Community, and Staff Involvement



- f. Summary of PBIS Implementation Fidelity by School Level and Change in Fidelity
4. What is the alignment between PBIS and other related division initiatives (i.e., Student Response Team [SRT], Social-Emotional Learning [SEL], and Culturally Responsive Practices [CRP])?
5. What are the demographic characteristics of the students who are served based on schools' PBIS implementation fidelity?
6. What progress was made toward meeting the outcome goals and objectives of PBIS?
7. What was the relationship between PBIS implementation and student academic achievement, disciplinary referrals (including by student groups), disciplinary outcome decisions (including by student groups), and teacher retention?
8. What was the additional annual direct cost to VBCPS for implementing PBIS?

## Evaluation Results and Discussion

### Divisionwide Implementation

The first evaluation question focused on the divisionwide implementation plan, including the progress made on the Virginia Tiered Systems of Supports DCA. The implementation of PBIS is overseen by the Office of Student Support Services. A division implementation and leadership team consists of staff from Student Support Services, Professional Growth and Innovation, Student Leadership, School Counseling Services, Programs for Exceptional Children, Teaching and Learning, and Research and Evaluation. The implementation team meets monthly to coordinate efforts, ensure supports are in place, and review data.

### PBIS Implementation Plan and Status

Table 4 below displays the PBIS cohorts, the initial implementation model when the schools in the cohort began implementing PBIS, and the division's implementation progress as of 2021-2022. During the 2017-2018 school year, VBCPS began to implement the VBCPS model for PBIS, which involved embedded school-level coaching. For the purposes of the evaluation, cohorts 1 and 2 are combined due to their initial implementation models preceding the VBCPS coaching model.

**Table 4: PBIS Cohorts and Implementation Progress**

PBIS Cohort	Number of School Sites <sup>18</sup>	Implementation Year(s)	Initial Implementation Model	Implementation Progress as of 2021-2022
Cohorts 1 and 2	20 schools (10 elementary, 6 middle, 4 high)	2012-2013 through 2015-2016	MTSS-B and some state support	Received Tier I and Tier II training
Cohort 3	19 schools (16 elementary, 3 middle)	2017-2018	VBCPS coaching model	Received Tier I and Tier II training
Cohort 4	21 schools (17 elementary, 4 middle)	2018-2019	VBCPS coaching model	Received Tier I and Tier II training
Cohort 5	24 schools (13 elementary, 3 middle, 8 high)	2019-2020	VBCPS coaching model	Received Tier I training

Note: For Cohort 2, Renaissance Academy middle school and Renaissance Academy high school are considered as two separate sites because they each received their own TFI scores. Green Run High School and Green Run Collegiate are considered one site because the campus as a whole received one TFI score. For Cohort 5, Old Donation School is considered as two separate sites at the elementary school and middle school levels because they each received their own TFI scores.

Each school that implements PBIS is assigned one of the five divisionwide PBIS coaching staff. The coaches work across multiple schools to support school leadership teams and teachers with their PBIS implementation. Each school receives professional development related to the appropriate PBIS tier being implemented, beginning with Tier I, and works with a divisionwide PBIS coach to ensure fidelity of implementation.

As of 2021-2022, all schools had received training for and were implementing PBIS Tier I practices, which is the focus of this Tier I evaluation. Once schools have begun implementing Tier I practices, the fidelity of the Tier I implementation is evaluated using the TFI. After reaching and sustaining fidelity at Tier I for one year (i.e., 80% on the TFI), schools begin to focus on implementing Tier II practices the following year. In VBCPS, it is the expectation that elementary schools reach fidelity for each tier within two years and that schools at the secondary level reach fidelity within three to five years.<sup>19</sup> Due to the pandemic, the initial timeline for schools to reach fidelity was adjusted forward one year with the expectation that all schools will reach fidelity on Tier I implementation by spring 2023.<sup>20</sup>

As of the 2021-2022 school year, schools in Cohorts 1, 2, 3, and 4 had received training for PBIS Advanced Tiers and had begun implementation of Tier II practices.<sup>21</sup> It is the expectation that all schools reach Tier II fidelity (i.e., 80% on the Tier II TFI) by spring 2025. It is the expectation that baseline data for Tier III fidelity will begin to be collected in spring 2023 for schools that have enhanced their Tier III supports, and all schools will have baseline Tier III fidelity data collected by spring 2025.

### Progress on the District Capacity Assessment (DCA)

As the implementation of PBIS has progressed, VBCPS has used the DCA to assess the extent to which conditions in the school division were optimal for building capacity to effectively implement PBIS. The 2022 overall score on the DCA was 98 percent, suggesting that nearly all conditions are in place within the division for building capacity to effectively implement PBIS. This was consistent with the 2021 overall score of 98 percent, which was an improvement from the 2020 DCA overall score of 81 percent and the 2019 DCA overall score of 73 percent. Consistent with the 2021 scoring, the only area for improvement in 2022 was the division having a written process for selecting Effective Innovations, including collaborating with other departments on the process and consistently using the process. This Effective Innovations category on the DCA includes an analysis of the need for the practice, fit and alignment with other practices, resources needed to fully implement, and the capacity within the division to successfully use the practice.,

### Staff Familiarity and Understanding of PBIS

The second evaluation question focused on the extent to which staff was familiar with PBIS and had a shared understanding of the PBIS framework. Staff were asked a general survey item about their familiarity with PBIS. Overall, 97 percent of teachers, 99 percent of administrators, and 96 percent of other instructional staff indicated they were either very familiar or somewhat familiar with their school's PBIS implementation. Comparisons by school level showed that at least 90 percent of staff in each group and school level were familiar (see Table 5). These results were similar to the percentages of staff indicating familiarity during the 2020-2021 school year.

**Table 5: Percentages of Staff Who Indicated They Were Very Familiar or Somewhat Familiar With School's PBIS Implementation**

Survey Group	Elem	Middle	High	Total
Teachers	98%	98%	95%	97%
Administrators	99%	100%	100%	99%
Other Instructional Staff	99%	94%	90%	96%

Correlation results showed that the percentage of staff overall who were very familiar with their school's PBIS implementation was significantly correlated with the TFI Teams ( $r = .36$ ) and Implementation subscale scores ( $r = .46$ ) as well as the overall Aggregate TFI score ( $r = .47$ ). Schools with higher TFI percentages also had higher percentages of staff who reported being very familiar with the school's PBIS implementation.



Administrators were asked additional survey items related to staff understanding of PBIS at their school. Administrators were surveyed about their staff having a shared understanding of the PBIS framework, and overall, 97 percent of administrators agreed with this item. Comparisons by level showed that all elementary school administrators and most middle school (97%) and high school (90%) administrators agreed that their staff had a shared understanding of the PBIS framework (see Table 6). In comparison to perceptions from 2020-2021, there were improvements in the percentages of middle school (from 93% to 97%) and high school administrators (from 81% to 90%) who agreed that their staff had a shared understanding of the PBIS framework.

**Table 6: Administrator Agreement Percentages Regarding Staff Having Shared Understanding of PBIS**

Survey Item	Elem	Middle	High	Total
My staff has a shared understanding of the PBIS framework.	100%	97%	90%	97%

Administrators were also asked an open-ended question regarding how their school describes PBIS when communicating with stakeholders. Most administrators who responded to the question emphasized that PBIS is a framework for reinforcing positive behaviors and teaching students these expectations. Several administrators described their school's unique PBIS motto (e.g., The Dolphin Way; Castle Code; ROFO Ready) and/or their school's PBIS expectations (e.g., Respectful, Responsible, and Ready to Learn). Some administrators identified the type of method used to communicate with their stakeholders (e.g., parent newsletters, schoolwide events, student assemblies). A few administrators commented primarily about the school culture, consistency of the practices of PBIS, or providing support for student growth or success.

## Tier I PBIS Practices and Related Goals and Objectives

The third evaluation question focused on the components of Tier I PBIS practices as well as progress toward meeting related implementation goals and objectives. As previously mentioned, at the Tier I level, supports are provided to all students and are the basis for a school's PBIS framework. At this level, key components include a few positively framed expectations for staff and students, procedures for teaching expectations, continua of procedures for reinforcing behaviors consistent with expectations and discouraging behaviors inconsistent with expectations, and procedures for regularly monitoring and evaluating effectiveness. Each school has a Tier I PBIS team that establishes the systems and practices and monitors data to evaluate effectiveness.

During the evaluation planning phase, goals and objectives related to the implementation of PBIS were developed. The TFI provides an overall assessment of the extent to which school personnel are applying core features of schoolwide PBIS and implementing the initiative with fidelity. For this section of the report, information and results about Tier I practices are organized around key aspects of implementation and the goals and objectives that were developed for PBIS at the division level. The Tier I features that will be discussed include the following:

- Aspects of the school leadership team such as team composition and meetings;
- Implementation of practices, including schoolwide expectations, procedures, and classroom practices;
- Professional learning opportunities that were provided to support PBIS implementation;
- Data review and use; and
- Student, family, community, and staff involvement.

### PBIS Team Composition and Meetings

A foundational component of PBIS is having a PBIS Tier I leadership team at each school that establishes the systems and practices for Tier I support and is responsible for monitoring schoolwide data, ensuring students

receive equitable access to these supports, and evaluating the initiative's effectiveness.<sup>22</sup> According to guidance from the VBCPS PBIS division coaching team posted on SharePoint, every school PBIS leadership team should be representative of the school community, consist of 6-8 members in total, and include the following: an administrator, general education teachers, special education teachers, specialists (e.g., reading, math, Title I, gifted), behavioral experts (e.g., counselors, psychologists, social workers, student support specialists), classified staff, and team members who may provide a family perspective.<sup>23</sup>

On the 2021-2022 survey, staff were asked whether they were a member of their school's PBIS leadership team. Overall, 13 percent of teachers, 81 percent of administrators, and 16 percent of other instructional staff who responded to the survey indicated they were on their school's PBIS leadership team. As shown in Table 7, most elementary school administrators (94%) and the majority of middle school (71%) and high school (64%) administrators indicated they were a PBIS team member at their school. For teachers, higher percentages indicated they were a member at the elementary school (17%) and middle school levels (14%) than at the high school level (7%). From 14 to 20 percent of other instructional staff depending on level indicated they were a PBIS team member (see Table 7).

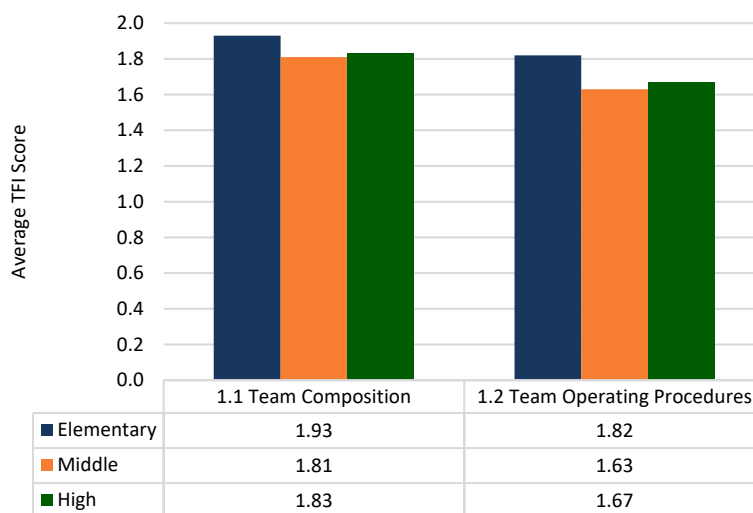
**Table 7: Percentages of Staff Who Indicated They Were PBIS Tier I Team Members**

Survey Group	Elem	Middle	High	Total
Teachers	17%	14%	7%	13%
Administrators	94%	71%	64%	81%
Other Instructional Staff	16%	20%	14%	16%

Based on the Team Composition feature on the TFI, a school's Tier I leadership team must include a Tier I systems coordinator, a school administrator, a family member, and individuals able to provide the following: applied behavioral expertise, coaching expertise, knowledge of student academic and behavior patterns, knowledge about the operations of the school across grade levels and programs, and student representation at the high school level only. In addition, the Team Operating Procedures TFI feature stipulates that Tier I teams are expected to meet at least monthly with a regular meeting format/agenda, minutes, defined meeting roles, and a current action plan.

As shown in Figure 2, overall, schools had slightly higher average fidelity scores for the Team Composition item than the Team Operating Procedures item. Team Composition and Team Operating Procedures TFI data by school level showed that the average fidelity scores were slightly higher at the elementary school level than at the secondary levels (see Figure 2).

**Figure 2: Average TFI Team Item Scores by School Level**



### Schoolwide Expectations, Procedures, and Classroom Practices

An essential PBIS practice at the Tier I level includes establishing a set of schoolwide behaviors and expectations. Each school should create a shared vision and approach to responding to student behavior through their school mission or vision statement and three to five positively-stated expectations that should be defined for each school routine and setting.<sup>24</sup> Through SharePoint and each school's shared PBIS Google drive, the PBIS division coaching team provided school PBIS teams with a blank matrix to outline their schoolwide expectations.<sup>25</sup> The rows of the matrix should include the three to five positively-stated expectations (e.g., be respectful, responsible) and the columns should include the various settings/locations (e.g., hallway, restroom). Within the cells of the matrix, schools should provide explicit descriptions of the expected behavior (e.g., "walk on the right" for Being Safe in the hallway and "use resources wisely" for Being Responsible in the restroom). In addition, the PBIS division coaching team provided staff with VBCPS bus expectations that included the expectations of "Be Respectful, Be Responsible, and Stay Safe."<sup>26</sup> The descriptions of student behaviors in each of these areas were provided for entering the bus (e.g., "be patient" and "take turns" for Be Respectful), riding the bus (e.g., "use a quiet voice" for Be Responsible), and exiting the bus (e.g., "walk" for Stay Safe). It is expected that students are explicitly taught these behavioral expectations. Through SharePoint, the PBIS division coaching team provided staff with examples of ways these expectations could be taught (e.g., reviewing each and brainstorming examples at the elementary level; discussing and role playing at the high school level).<sup>27</sup>

Schools must also establish schoolwide procedures for acknowledging students for positive behaviors and for discouraging students from behaviors that interfere with academic and social success (i.e., consequences). Through a PowerPoint presentation, the PBIS division coaching team provided school PBIS teams with detailed examples regarding acknowledgements, including the various ways to acknowledge students for positive behaviors (i.e., immediate/high frequency, intermittent, and long-term schoolwide celebrations), various types of reinforcers (e.g., natural, material, and social), and examples of acknowledgement systems across the division.<sup>28</sup> Regarding providing consequences, the VBCPS division coaching team provided school PBIS teams with examples of behaviors that may be managed within the classroom (e.g., throwing things without intent to cause harm and mocking others) and behaviors that may result in referral to the principal's office (e.g., verbal altercation and profanity or threats).<sup>29</sup> In addition, they provided an example flowchart of the types of interventions that may be used for classroom management and the steps needed when referring students to the office.<sup>30</sup>

All schoolwide behaviors and expectations should be applied consistently at the classroom level with classroom expectations and routines. On the VBCPS PBIS Resources Google Site, the PBIS division coaching team provided guidance to school PBIS teams on the eight PBIS Classroom Practices, including: expectations and agreements, procedures and routines, behavior feedback – acknowledgement, behavior feedback – error correction, active supervision, physical arrangement, opportunities to respond, and positive behavior game (group contingencies).<sup>31</sup> Resources were made available to school PBIS teams for each of these practices that included a detailed definition or description of the practice, the components and/or how it may be utilized in the classroom, the research behind the practice, and how to assess use of the practice.<sup>32</sup> In addition, a one-page handout was created describing each of the eight practices with direct links to the eight handouts for more details (see Appendix A).<sup>33</sup>

### ***PBIS Goal and Objectives Related to Expectations and Procedures***

The goal related to PBIS expectations and procedures is **“Schools have clearly defined behavioral expectations for students and staff and established procedures for staff to implement PBIS consistently within their schools and classrooms.”** Objectives for this goal focused on (1) schoolwide behavioral expectations and classroom procedures, (2) student knowledge of expectations, and (3) consequences and acknowledgement.

***Behavioral Expectations and Classroom Procedures.*** The *behavioral expectations and classroom procedures objective* for the PBIS expectations and procedures goal is **“Schools have positively framed student and staff behavioral expectations, classroom procedures are aligned with these expectations, and these expectations are explicitly taught to students as measured by scores of 2 on relevant TFI features (e.g., 1.3, 1.8, and 1.4) and staff and student survey responses.”**

Overall, across the division, at least 87 percent of teachers, administrators, and other instructional staff agreed that their school had established positively framed expectations for student behavior, at least 71 percent of each staff group agreed that the expectations for students and staff at their school were implemented across the classrooms, and at least 76 percent of each staff group agreed that behavioral expectations were explicitly taught to students (see tables 8 and 9). Comparisons by school level showed that agreement percentages regarding these items were generally lowest at the high school level, with the areas of lowest agreement being teacher and other instructional staff agreement that expectations for students and staff are implemented across the classrooms (59%-63%) and that behavioral expectations were explicitly taught to students (62%-63%). Middle school results for teachers and other instructional staff were also notably lower than elementary school results for these items (66%-74%).

**Table 8: Teacher Agreement Percentages Regarding Behavioral Expectations and Classroom Procedures Items**

Survey Item	Elem	Middle	High	Total
My school has established positively framed expectations for student behavior.	94%	85%	81%	87%
The expectations for students and staff at this school are implemented across the classrooms.	82%	66%	63%	71%
The behavioral expectations are explicitly taught to students.	90%	74%	62%	76%

**Table 9: Administrator and Other Instructional Staff Agreement Percentages Regarding Behavioral Expectations and Classroom Procedures Items**

Survey Item	Administrators				Other Instructional Staff			
	Elem	Middle	High	Total	Elem	Middle	High	Total
My school has established positively framed expectations for student behavior.	100%	100%	97%	99%	93%	93%	84%	92%
The expectations for students and staff at this school are implemented across the classrooms.	100%	91%	82%	93%	81%	67%	59%	74%
The behavioral expectations are explicitly taught to students.	97%	88%	91%	93%	86%	73%	63%	79%

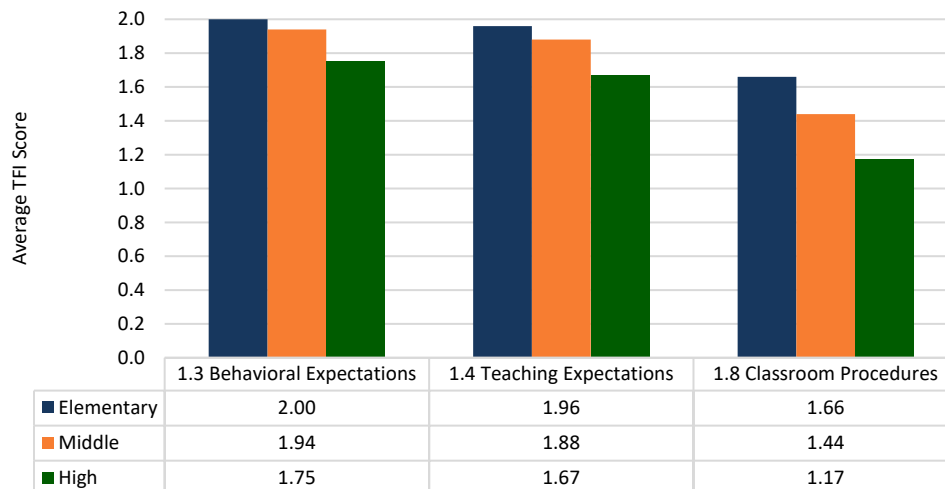
Overall, high percentages of students (at least 86%) agreed that their school had established expectations for student behavior, that the expectations for their behavior were consistent across classrooms, and that the expectations for their behavior were taught to them (see Table 10). Comparisons by school level showed that at least 83 percent of students at each level agreed with these items.

**Table 10: Student Agreement Percentages Regarding Behavioral Expectations and Classroom Procedures Items**

Survey Item	Elem	Middle	High	Total
My school has established expectations for student behavior.	96%	93%	91%	93%
The expectations for my behavior are consistent across the classrooms.	91%	86%	83%	86%
The expectations for my behavior are taught to me.	93%	90%	86%	89%

The three TFI items related to expectations and procedures are: Behavioral Expectations, Teaching Expectations, and Classroom Procedures. Behavioral Expectations is focused on schools having positively stated behavioral expectations with examples, while Teaching Expectations is focused on directly teaching all students the expected academic and social behavior. Classroom Procedures is focused on Tier I features being implemented within classrooms and consistency with schoolwide systems. As shown in Figure 3, overall, schools had higher average fidelity scores for the Behavioral Expectations and Teaching Expectations items than the Classroom Procedures item. Average TFI scores were also higher at elementary schools and middle schools compared to high schools, consistent with survey results.

**Figure 3: Average TFI Item Scores on Behavior Expectations, Teaching Expectations, and Classroom Procedures by School Level**



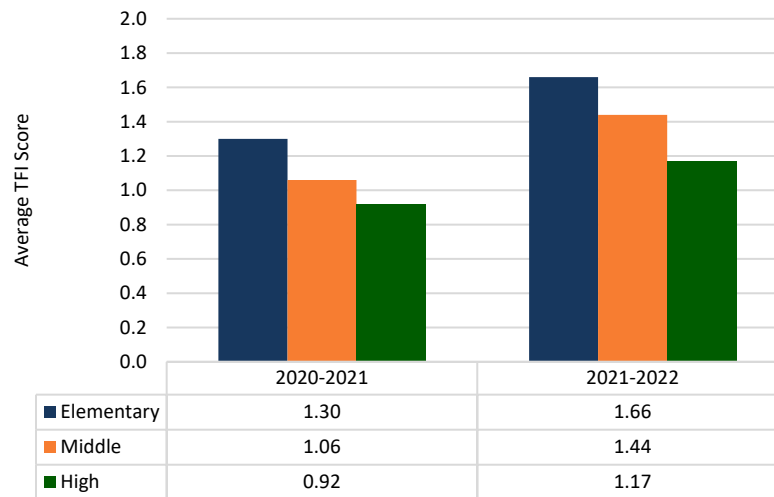
When correlating schools' TFI scores with agreement percentages on related survey items, several significant relationships were found. For the Behavioral Expectations TFI item, there were statistically significant relationships such that schools with higher TFI scores also had higher staff agreement regarding their school having established positively framed expectations for student behavior ( $r_s = .30$ ) and higher percentages of students agreeing that their school had established expectations for student behavior ( $r_s = .30$ ). For the Teaching Expectations TFI item, there were significant relationships such that schools with higher TFI scores also had higher staff agreement regarding student behavioral expectations being explicitly taught ( $r_s = .26$ ) and higher percentages of students agreeing that expectations for behavior were taught to them ( $r_s = .36$ ). For Classroom Procedures, schools with higher TFI scores also had higher percentages of staff agreeing that the expectations for students and staff were being implemented across classrooms ( $r_s = .35$ ) and higher percentages of students agreeing that the expectations for behavior are consistent across classrooms ( $r_s = .32$ ). These statistically significant correlations between TFI scores and staff and student perceptions, although not particularly strong, suggest some degree of validity and reliability of the TFI and stakeholder perception data for measuring the level of PBIS implementation fidelity.

One recommendation from the year-one 2020-2021 evaluation focused on ensuring schools were implementing PBIS practices and procedures consistently across classrooms. The PBIS specialist indicated that actions taken regarding this recommendation during 2021-2022 included sharing the one-page handout with details about PBIS classroom practices with all school teams. In addition, as part of optional professional learning series modules created in November 2021, a video was created that described the classroom procedures portion of the TFI and the eight classroom practices in detail.<sup>34</sup> A copy of the presentation slides with links to all resources referenced in the video was also provided on the VBCPS PBIS Fundamentals: Learning Series Google Site. The learning intentions for the video included reviewing the PBIS classroom practices and creating a plan to utilize PBIS classroom practices in the learning environment. In addition, the classroom observation form that measures the fidelity of the eight classroom practices was provided to all school teams in Spring 2022. A video module was created to support the use of this tool and provided on the VBCPS PBIS Fundamentals: Learning Series Google Site.<sup>35</sup>

When teachers were surveyed about implementing routines and expectations that are consistent with the schoolwide behaviors and expectations at their school, overall, 98 percent of teachers agreed. There was little variation by school level (from 97% to over 99%). In addition, as shown in Figure 4, in comparison to 2020-2021, the average TFI item scores improved in 2021-2022 at all school levels. However, as previously

noted, in 2021-2022, relatively low percentages of teachers and other staff agreed that expectations for students and staff are implemented across the classrooms, especially at the secondary levels (59%-67%).

**Figure 4: Average TFI Item Scores on Classroom Procedures by School Level for 2020-2021 and 2021-2022**



**Student Knowledge of Expectations.** The *student knowledge of expectations objective* for the PBIS expectations and procedures goal is **“Students know what behavior is expected of them as measured by student and teacher survey responses.”** As shown in Table 11, overall, 95 percent of students agreed that they knew what behavior was expected of them at their school with at least 93 percent of students agreeing at all school levels. In addition, 84 percent of teachers overall agreed that students knew what behavior was expected of them at their school, with lower agreement percentages from middle school (82%) and high school teachers (77%) compared to elementary school teachers (93%).

**Table 11: Student and Teacher Agreement Percentages Regarding Students Knowing Behavior Expectations**

Survey Group and Item	Elem	Middle	High	Total
Students - I know what behavior is expected of me at this school.	97%	95%	93%	95%
Teachers - Students know what behavior is expected of them at this school.	93%	82%	77%	84%

Correlations were also examined between survey items regarding student knowledge of expected behaviors and related TFI items (i.e., Behavior Expectations, Teaching Expectations, and Classroom Procedures), with several statistically significant relationships found. Schools with higher Behavior Expectations TFI scores had higher percentages of teachers agreeing that students know what behavior is expected of them ( $r_s = .24$ ) and had higher percentages of students who agreed that they knew what behavior is expected of them at school ( $r_s = .31$ ). In addition, schools with higher Teaching Expectations TFI scores had higher percentages of teachers agreeing that students know what behavior is expected of them ( $r_s = .29$ ) and had higher percentages of students who agreed that they knew what behavior is expected of them at school ( $r_s = .38$ ). Schools with higher Classroom Procedures TFI scores also had higher percentages of teachers agreeing that students know what behavior is expected of them ( $r_s = .32$ ) and students agreeing ( $r_s = .40$ ) that they knew what behavior is expected of them.

**Consequences and Acknowledgements.** The *consequences and acknowledgements objective* for the PBIS expectations and procedures goal is **“Schools have clearly defined student behaviors that interfere with academic and social success and outlined staff procedures to respond to student behaviors (e.g., manage, acknowledge) across classrooms as measured by TFI scores of 2 on relevant TFI features**



(e.g., 1.5, 1.6, and 1.9) and staff and student survey responses.” As shown in tables 12 and 13, overall, at least 77 percent of teachers, administrators, and other instructional staff agreed that their school had determined the student behaviors that interfered with academic and social success. In addition, at least 74 percent of teachers, administrators, and other instructional staff agreed that their school had outlined procedures for staff to respond to student behaviors. The general pattern of results for these items showed lower agreement percentages at the high school level for each group, although agreement was at least 71 percent for both items at all levels.

**Table 12: Teacher Agreement Percentages Regarding Consequences and Acknowledgements Items**

Survey Item	Elem	Middle	High	Total
My school has determined the student behaviors that interfere with academic and social success.	81%	76%	74%	77%
My school has outlined procedures for staff to respond to student behaviors.	75%	77%	71%	74%

**Table 13: Administrator and Other Instructional Staff Agreement Percentages Regarding Consequences and Acknowledgements Items**

Survey Item	Administrators				Other Instructional Staff			
	Elem	Middle	High	Total	Elem	Middle	High	Total
My school has determined the student behaviors that interfere with academic and social success.	100%	97%	94%	98%	81%	82%	86%	82%
My school has outlined procedures for staff to respond to student behaviors.	100%	97%	97%	99%	78%	83%	76%	79%

Student survey results showed that 94 percent agreed that they knew which behaviors could prevent them from being successful in school with little variation by school level (see Table 14).

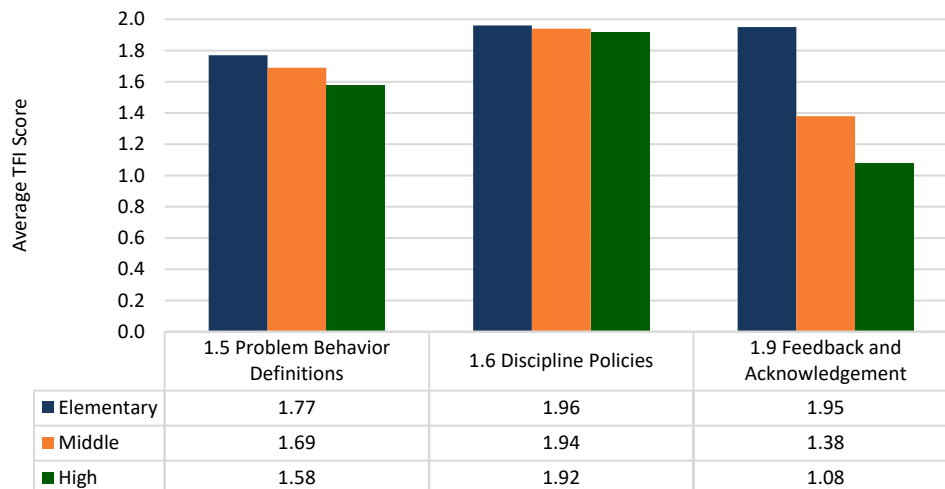
**Table 14: Student Agreement Percentages Regarding Knowing Which Behaviors Could Prevent Them From Being Successful in School**

Survey Item	Elem	Middle	High	Total
I know which behaviors could prevent me from being successful in school.	95%	94%	93%	94%

The three TFI items related to consequences and acknowledgements are: Problem Behavior Definitions, Discipline Policies, and Feedback and Acknowledgement. Problem Behavior Definitions is focused on schools having clear definitions for behaviors that interfere with academic and social success with a clear policy/procedure to address problems, while Discipline Policies is focused on policies and procedures that describe and emphasize proactive, instructive, and/or restorative approaches to student behavior. Feedback and Acknowledgement is focused on having a set of procedures for behavior feedback that is linked with schoolwide expectations and used across settings and in classrooms. As shown in Figure 5, at the elementary school level, schools had higher average fidelity scores for the Discipline Policies and Feedback and Acknowledgement item than the Problem Behavior Definitions item. At the secondary levels, schools had higher average fidelity scores for the Discipline Policies item, followed by the Problem Behavior Definitions item, and the Feedback and Acknowledgement item. There was limited variability by level in the average score for the Discipline Policies item, while middle schools and high schools had notably lower average TFI scores relative to the elementary schools for the Feedback and Acknowledgement item (see Figure 5).



**Figure 5: Average TFI Item Scores on Problem Behavior Definitions, Discipline Policies, and Feedback and Acknowledgement by School Level**



When correlating TFI scores for Feedback and Acknowledgement with survey agreement percentages on related items, results showed that schools that had higher TFI scores on the Feedback and Acknowledgement item had higher percentages of all staff *strongly* agreeing ( $r_s = .28$ ) that their school had outlined procedures for staff to respond to student behavior and that their school had determined the behaviors that interfere with academic and social success ( $r_s = .29$ ). In addition, schools that had higher TFI scores on the Feedback and Acknowledgement item had higher percentages of students agreeing that they know which behaviors could prevent them from being successful in school ( $r_s = .24$ ). There were no significant correlations (i.e., relationship) between scores for the Problem Behavior Definitions and Discipline Policies TFI items and survey results.

### Professional Learning

Professional learning is another key feature of PBIS implementation. In previous years, in-person two-day trainings have been provided to each cohort. However, due to the pandemic, this was not feasible in 2020-2021.<sup>36</sup> In addition, during the 2021-2022 school year, all professional learning sessions were placed on hold due to staffing challenges related to the pandemic; therefore, there were no required professional learning sessions offered to staff. Instead, the PBIS division coaching team created a series of video modules to provide staff optional lessons through the PBIS Fundamentals: A Learning Series Google site.<sup>37</sup> On the Google website, video modules were provided for the following Tier I-related topics: PBIS team composition and functioning; creating and teaching school-wide expectations; getting started with PBIS; overview of the classroom practices; behavior definitions; discipline procedures; school-wide acknowledgement systems; faculty involvement; students, family, and community involvement; data-informed decision making; staff professional learning; and fidelity and evaluation of PBIS. In addition, video modules were provided for the following Tier II-related topics: Tier II overview; Tier II teaming; screening and request for assistance; options for interventions, practices matched to student need, and access to Tier I universal supports; Tier II critical features; Tier II professional development; level of use and student performance data; and Tier II fidelity and evaluation. Additional resource videos included cultural responsiveness within the PBIS framework and a guide for response to discipline disproportionality. In addition, in December 2021, March 2022, and June 2022, the PBIS division coaching team provided issues of an electronic newsletter to staff, called the “PBIS Coaching Connection.” The newsletter provides staff with resources and highlights schools that are “PBIS champions,” as examples of those schools who are doing outstanding PBIS-related work.<sup>38</sup>

### **PBIS Goal and Objectives Related to Professional Learning**

The PBIS goal related to professional learning is **“Professional learning opportunities provide staff with effective support and information to successfully implement PBIS Tier I within their schools and classrooms.”** Objectives for this goal focused on (1) core practices, (2) classroom management, and (3) teacher confidence.

**Core Practices.** The *core practices objective* for the professional learning goal is **“Professional learning is provided for staff on how to teach schoolwide expectations, acknowledge appropriate behavior, correct errors, and request assistance as measured by TFI scores of 2 on TFI feature 1.7 and staff survey responses.”** Overall, at least 76 percent of teachers, 96 percent of administrators, and 77 percent of other instructional staff agreed that they received professional learning on various PBIS-related topics (i.e., teaching schoolwide expectations for behavior, acknowledging appropriate behavior, correcting errors in behavior, requesting assistance for behavior issues). Comparisons by school level showed that the highest agreement percentages were at the elementary school level and the lowest agreement percentages were at the high school level for all staff groups across each area (see tables 15 and 16). Compared to teachers and other instructional staff at the elementary school and middle school levels, lower percentages of high school teachers and other instructional staff agreed that they received professional learning about the PBIS topics (from 58% to 74% for all areas except acknowledging appropriate behaviors). This finding would be expected given that most high schools and several middle schools were first implementing PBIS in 2019-2020 when the COVID-19 pandemic began and professional learning was impacted as the pandemic continued.

**Table 15: Teacher Agreement Percentages Regarding Receiving PBIS-Related Professional Learning**

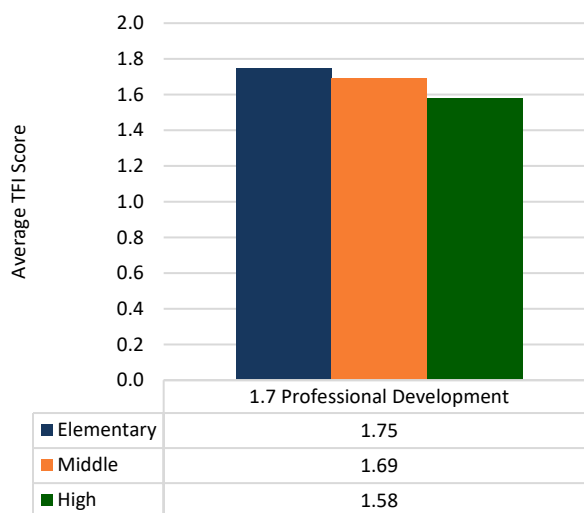
Survey Item	Elem	Middle	High	Total
Teach schoolwide expectations for behavior	91%	78%	67%	79%
Acknowledge appropriate behavior	94%	87%	82%	88%
Correct errors in behavior	85%	75%	71%	77%
Request assistance for behavior issues	81%	72%	74%	76%

**Table 16: Administrator and Other Instructional Staff Agreement Percentages Regarding Receiving PBIS-Related Professional Learning**

Survey Item	Administrators				Other Instructional Staff			
	Elem	Middle	High	Total	Elem	Middle	High	Total
Teach schoolwide expectations for behavior	100%	94%	88%	96%	86%	78%	58%	80%
Acknowledge appropriate behavior	100%	97%	94%	98%	95%	89%	75%	90%
Correct errors in behavior	100%	94%	91%	96%	80%	81%	62%	77%
Request assistance for behavior issues	100%	97%	94%	98%	82%	86%	73%	81%

The TFI item, Professional Development, is focused on having a written process for orienting all staff on the PBIS practices: teaching expectations, acknowledgement of appropriate behavior, correcting errors, and requesting assistance. Average fidelity scores by school level in Figure 6 show that elementary schools had a higher average fidelity score followed by middle schools and then high schools, which was consistent with the pattern of staff survey results. There were no significant correlations between TFI scores for Professional Development and the related survey data. This finding suggests that staff agreement percentages regarding receiving professional learning were not related to schools having higher TFI scores on Professional Development, which is not surprising given that required professional learning was placed on hold for all schools during the 2021-2022 school year.

**Figure 6: Average TFI Professional Development Item Scores by School Level**



**Classroom Management.** The *classroom management objective* for the professional learning goal is **“Professional learning is provided that ensures teachers have knowledge of classroom practices to manage and respond to student behavior as measured by teacher survey responses.”** Overall, 82 percent of teachers who indicated they received professional learning in this area agreed that the professional learning they received provided them with knowledge of classroom practices to manage and respond to student behavior. Comparisons by school level showed a higher agreement percentage at the elementary school level (86%) followed by middle school (81%) and high school (79%) (see Table 17). There were no significant correlations between TFI scores for Professional Development and the related survey data.

**Table 17: Teacher Agreement Percentages Regarding Professional Learning Providing Knowledge of Classroom Management**

Survey Item	Elem	Middle	High	Total
The professional learning I have received has provided me with knowledge of classroom practices to manage and respond to student behavior.	86%	81%	79%	82%

Note: Percentages exclude teachers who indicated they did not receive professional learning in this area.

**Teacher Confidence.** The *teacher confidence objective* for the professional learning goal is **“Teachers are confident in applying instructional practices related to student behavior and perceive they are capable of managing and responding to student behavior as measured by teacher survey responses.”** Overall, 91 percent of teachers agreed that they were confident in applying instructional practices to address student behavior when needed, and 95 percent agreed that they could manage and respond to student behavior concerns when needed. Comparisons by school level showed high agreement at all school levels (at least 88%) (see Table 18). There were no significant correlations between TFI scores for Professional Development and the related survey data.

**Table 18: Teacher Agreement Percentages Regarding Professional Learning Providing Confidence in Applying Practices and Responding to Behavior Concerns**

Survey Item	Elem	Middle	High	Total
I am confident in applying instructional practices to address student behavior when needed.	95%	90%	88%	91%
I can manage and respond to student behavior concerns when needed.	96%	95%	95%	95%

## Data Review and Use

Another key component of PBIS at all three tiers is the collection and regular use of data to screen, monitor, and assess student progress.<sup>39</sup> At the Tier I level, it is expected that PBIS leadership teams review schoolwide discipline and academic data to guide decision making and review fidelity data to evaluate implementation.<sup>40</sup> In addition, school personnel should view schoolwide data and provide input on Tier I practices.

Synergy is the data system used by all schools across the division. In previous school years, some VBCPS schools also used a Schoolwide Information System (SWIS) product to collect and monitor student discipline data to inform decision making. However, during 2021-2022, there were statewide changes in the types of discipline-related data collected for Virginia's Student Behavior and Administrative Response (SBAR) data collection, which did not align with the types of data entered into the SWIS system. Therefore, the SWIS product was not used by any VBCPS school in 2021-2022. During the 2021-2022 school year, schools were encouraged to use their own methods for collecting and monitoring data for decision making. Through SharePoint, the PBIS division coaching team provided school PBIS teams a problem-solving worksheet to help support staff using data for decision making.<sup>41</sup> In particular, on the worksheet, staff were asked to provide the target problem and answer the following questions: What does the data say? (e.g., what is the problem behavior, when does it occur, where does it occur), What is the SMART goal?, What will we do to support student behavior? (i.e., Prevent, Teach, Reinforce, Extinguish, Error Correction, Safety), and What will we do to support staff?. In addition, during the 2021-2022 school year, one school piloted the use of the software system PBIS Rewards, which is a platform that assists schools in their PBIS implementation, including allowing staff to recognize students for meeting behavior expectations and track referrals.<sup>42</sup>

Additionally, during the 2021-2022 school year, a data analytics platform, Unified Insights, was purchased for the school division. In collaboration with Department of Technology staff, Office of Student Support Services staff have been preparing for the platform to be used by school staff to guide decision making for PBIS.<sup>43</sup> School administrators were provided with initial information about the platform during the 2021-2022 school year. For the 2022-2023 school year, school staff will have access to data within the Unified Insights platform and school PBIS teams will be encouraged to use the platform for monitoring PBIS-related data.

### ***PBIS Goal and Objectives Related to Data Review and Use***

The goal related to data review and use is **"Data are reviewed and used regularly to inform PBIS Tier I practices."** Objectives for this goal focused on (1) a discipline data system, (2) schoolwide data, and (3) fidelity data.

***Discipline Data System.*** The *discipline data system objective* for the data review and use goal is **"School Tier I PBIS teams have a discipline data system that graphs student problem behavior as measured by TFI scores of 2 on TFI feature 1.12 and staff survey responses."** Overall, 91 percent of the Tier I team members agreed that their team had access to student problem behavior data through a discipline data system. Comparisons by school level showed little variation in agreement percentages (see Table 19).

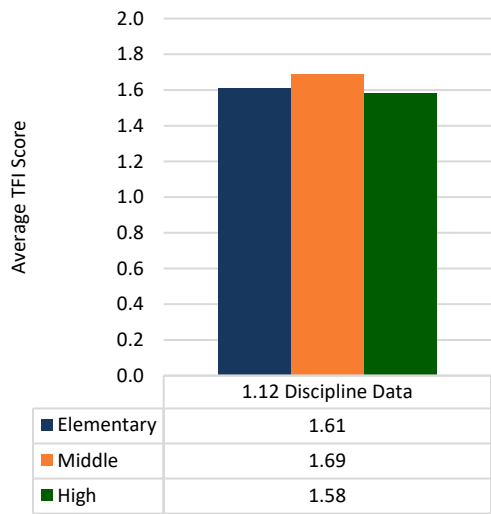
**Table 19: PBIS Tier I Team Member Agreement Percentages Regarding Having Discipline Data System**

Survey Item	Elem	Middle	High	Total
The PBIS Tier I team at my school has access to student problem behavior data through a discipline data system.	92%	91%	91%	91%

Note: Data include any staff member who indicated they were a PBIS Tier I team member, including teachers, administrators, and other instructional staff.

The related TFI item, Discipline Data, is focused on the Tier I team having access to graphed reports summarizing discipline data. Comparisons by level showed that there was little variation in the average fidelity scores, which is consistent with the survey data (see Figure 7).

Figure 7: Average TFI Discipline Data Item Scores by School Level



When correlating scores for the Discipline Data TFI item with agreement percentages on the related survey item, results showed a statistically significant correlation such that schools with higher TFI scores had higher percentages of team members who *strongly* agreed that their school’s Tier I team had access to student problem behavior data through a discipline data system ( $r_s = .34$ ).

*Schoolwide Data.* The *schoolwide data objective* for the data review and use goal is “**Schoolwide data are reviewed regularly by teachers (i.e., at least four times per year) and members of the school PBIS Tier I teams (i.e., at least monthly) to inform decision making regarding schoolwide practices as measured by TFI scores of 2 on relevant TFI features (e.g., 1.10 and 1.13) and staff survey responses.**” Overall, 83 percent of Tier I PBIS team members agreed that their team reviewed schoolwide data at least monthly to inform decision making about schoolwide practices. Team members at the elementary school and middle school levels had higher agreement than team members at the high school level (see Table 20).

Table 20: Tier I Team Member Agreement Percentages Regarding Team Reviewing Schoolwide Data

Survey Item	Elem	Middle	High	Total
The PBIS Tier I team at my school reviews schoolwide data at least monthly to inform decision making about schoolwide practices.	85%	85%	77%	83%

Note: Data include any staff member who indicated they were a PBIS Tier I team member, including teachers, administrators, and other instructional staff.

In addition, overall, 66 percent of teachers, 87 percent of administrators, and 75 percent of other instructional staff agreed that teachers reviewed schoolwide data at least four times per year to inform decision making about schoolwide practices. Results varied widely by school level. Lower percentages of staff at the high school level agreed that teachers reviewed schoolwide data throughout the school year to inform decision making compared to staff at the elementary school and middle school levels (see tables 21 and 22). These lower percentages on this survey item could be related to the time available for school staff to meet and review information given the staffing challenges experienced during 2021-2022 as a result of the pandemic.

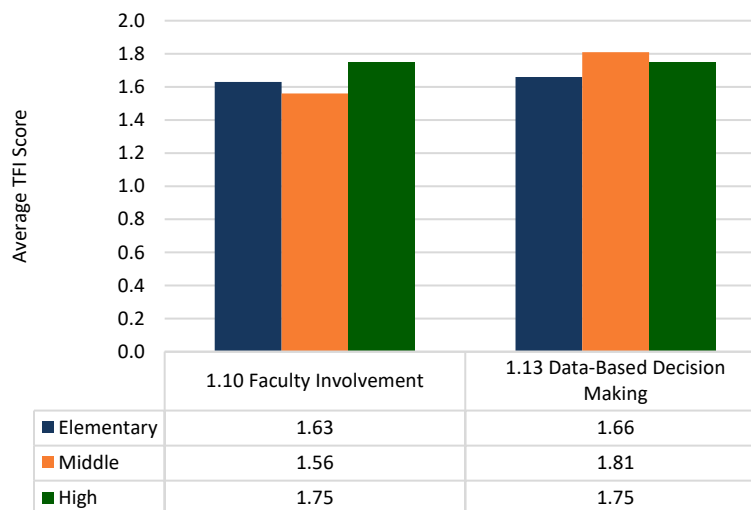
**Table 21: Teacher Agreement Percentages Regarding Teachers Reviewing Schoolwide Data**

Survey Item	Elem	Middle	High	Total
Teachers review schoolwide data at least four times per year to inform decision making about schoolwide practices.	77%	65%	54%	66%

**Table 22: Administrator and Other Instructional Staff Agreement Percentages Regarding Teachers Reviewing Schoolwide Data**

Survey Item	Administrators				Other Instructional Staff			
	Elem	Middle	High	Total	Elem	Middle	High	Total
Teachers review schoolwide data at least four times per year to inform decision making about schoolwide practices.	91%	86%	78%	87%	81%	76%	55%	75%

The TFI items related to reviewing data are Faculty Involvement and Data-Based Decision Making. Faculty Involvement is focused on staff being shown schoolwide data and providing input on Tier I practices, while Data-Based Decision Making is focused on Tier I teams reviewing and using discipline and academic outcome data for decision making. High schools had the highest average fidelity score for Faculty Involvement and middle schools had the highest average fidelity score for Data-Based Decision Making (see Figure 8).

**Figure 8: Average TFI Item Scores on Faculty Involvement and Data-Based Decision Making by School Level**

When correlating TFI scores for Data-Based Decision Making with agreement percentages on the related survey item, results showed that schools with higher TFI scores had higher *strong* agreement from team members that their school's Tier I team reviewed schoolwide data at least monthly to inform decision making ( $r_s = .29$ ). There were no statistically significant correlations between TFI scores for Faculty Involvement and survey data.

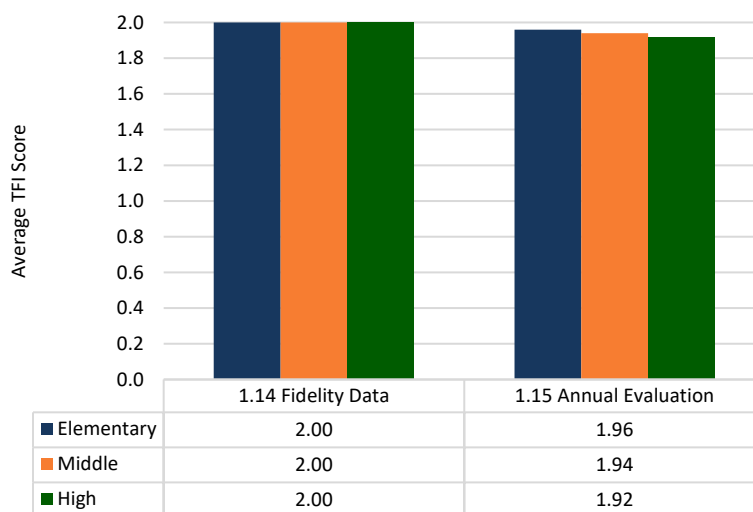
**Fidelity Data.** The *fidelity data objective* for the data review and use goal is “**School PBIS Tier I teams review and use Tier I fidelity data yearly to inform decision making regarding schoolwide practices as measured by TFI scores of 2 on TFI feature 1.14 and staff survey responses.**” Overall, 91 percent of Tier I PBIS team members agreed that their team reviewed and used Tier I fidelity data yearly to inform decision making about schoolwide practices. Agreement percentages at each school level were relatively high (at least 82%) (see Table 23).

**Table 23: Tier I Team Member Agreement Percentages Regarding Team Reviewing Tier I Fidelity Data**

Survey Item	Elem	Middle	High	Total
The PBIS Tier I team at my school reviews and uses Tier I fidelity data yearly to inform decision making about schoolwide practices.	95%	89%	82%	91%

Note: Data include any staff member who indicated they were a PBIS Tier I team member, including teachers, administrators, and other instructional staff.

The TFI items related to reviewing fidelity data are Fidelity Data and Annual Evaluation. Fidelity Data is focused on Tier I teams reviewing and using PBIS fidelity data, while Annual Evaluation is focused on Tier I teams documenting fidelity and effectiveness of Tier I practices and sharing with stakeholders. Annual Evaluation TFI scores were not formally included as a measure of the objective, but are shown in Figure 9 for reference. Regarding Fidelity Data, the average score was a 2 (the maximum score) for all school levels (see Figure 9). There were no significant correlations between scores for Fidelity Data and the related survey data. For Annual Evaluation, there was limited variability by school level in the average scores.

**Figure 9: Average TFI Item Scores on Fidelity Data and Annual Evaluation by School Level**

One recommendation from the 2020-2021 evaluation focused on providing protocols for and encouraging time allocation for staff to review schoolwide data to inform decision making at the secondary levels. The PBIS specialist indicated that actions taken regarding this recommendation during 2021-2022 included, as part of the fundamental learning series modules, creating and sharing videos in December 2021 with details about the following related Tier I areas: team composition and functioning; data informed decision making; and staff professional learning. In February 2022, additional videos were created and shared with details about Tier II screening/level of use and student performance data. Throughout the 2021-2022 school year, Office of Student Support Services staff were in collaboration with Department of Technology staff in preparation for the launch of the Unified Insights data platform. In addition, on a monthly basis throughout the year, Student Support Services staff members worked to support secondary schools in cohorts 2, 3, and 4 to identify data sources, determine needs, and action plan for the Tier II process. Additionally, in May 2022, support was provided to high school principals in the use of the Team-Initiated Problem Solving (TIPS) decision making process, which involves foundations needed to run effective meetings; process for using data to identify school needs and goals for change as well as for planning practical and effective solutions; and a process for using, monitoring, and adapting solutions.<sup>44</sup>

In comparison to 2020-2021, there were increases in the Data-Based Decision Making TFI item average scores at the secondary levels (from 1.38 to 1.81 at middle school, from 0.92 to 1.75 at high school). However, the



percentages of middle school and high school teachers and other instructional staff who agreed that teachers reviewed schoolwide data at least four times per year to inform decision making about schoolwide practices remained low in 2021-2022 (54%-65% of secondary teachers and 55%-76% of secondary other instructional staff in 2021-2022), which as mentioned previously, could have been related to the continued impacts of the pandemic on school operations.

### **Student, Family, Community, and Staff Involvement**

A final key practice for Tier I PBIS involves establishing procedures for encouraging school-family partnerships.<sup>45</sup> In particular, schools should seek feedback from students, families, the community, and staff regarding school Tier I foundations. According to the PBIS website, “this input ensures Tier I is culturally responsive and reflects the values of the local community.”<sup>46</sup> On SharePoint, the PBIS division coaching team provided staff with a handout that could be sent to families that describes what PBIS is with examples of PBIS expectations from a school within the division.<sup>47</sup> In addition, in partnership with the Office of Family and Community Engagement, a PBIS Stakeholder Voice Handbook was created to support staff in gathering feedback from students and families to inform procedures and behavioral supports at their schools.<sup>48</sup> In collaboration with the Office of Communications and Community Engagement, the PBIS division coaching team has worked to develop a PBIS website on VBSchools.com that provides details about the initiative for the community.

In fall 2019, a PBIS Student Summit was held to gather feedback from students regarding PBIS practices, and in March 2021, another Student Summit was held virtually to again gather feedback from high school students.<sup>49</sup> For the 2021-2022 school year, the PBIS division coaching team encouraged school administrators to gather student feedback regarding their individual school PBIS practices as appropriate through the use of established student groups at the individual school level.<sup>50</sup>

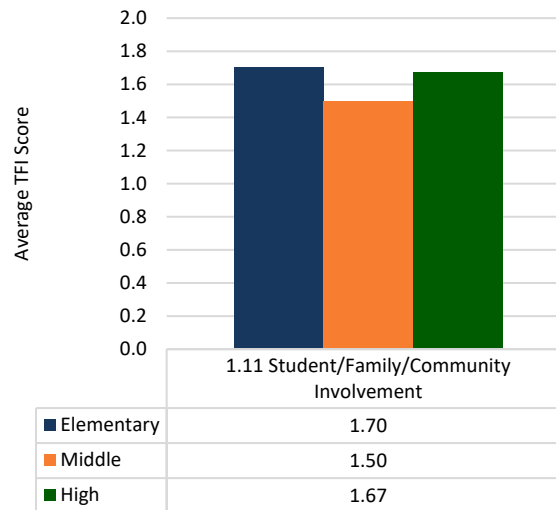
### **PBIS Goal and Objectives Related to Stakeholder Involvement**

The goal related to student, family, community, and staff involvement is **“Schools involve students, families, community, and staff during the schoolwide PBIS Tier I implementation.”** Objectives for this goal focused on (1) student, family, and community input, (2) awareness of practices and expectations, and (3) school staff support.

*Student, Family, and Community Input.* The *student, family, and community input objective* for the stakeholder involvement goal is **“Schools receive yearly input from students, families, and community members regarding schoolwide expectations, consequences, and acknowledgements as measured by TFI scores of 2 on TFI feature 1.11.”** The Student/Family/Community Involvement TFI item is focused on stakeholders (students, families, and community members) providing input on Tier I practices (e.g., expectations, consequences, and acknowledgements) at least annually. Elementary schools and high schools had higher average fidelity scores than middle schools regarding stakeholder involvement (see Figure 10).



**Figure 10: Average TFI Item Scores on Student/Family/Community Involvement by School Level**



**Awareness of Practices and Expectations.** The *awareness of practices and expectations objective* for the stakeholder involvement goal is **“Students and families are aware of practices and expectations that are part of PBIS implementation as measured by student and parent survey responses.”** Overall, 82 percent of students agreed that their school had a system to positively recognize student behavior. Results by school level showed that higher percentages of elementary school students agreed than middle school and high school students (see Table 24).

**Table 24: Student Agreement Percentages Regarding Their School Having a System to Positively Recognize Behavior**

Survey Item	Elem	Middle	High	Total
My school has a system to positively recognize student behavior.	91%	83%	77%	82%

Overall, 97 percent of parents agreed that they were aware of the student behavior expectations at their child’s school and 85 percent agreed that their child’s school has a system to positively recognize student behavior. While there was little variation in agreement percentages by school level regarding awareness of behavior expectations (from 96% to 97%), parent agreement was higher at the elementary school level than at the middle school and high school levels regarding having a system to positively recognize behavior (93% vs. 75%-77%) (see Table 25).

**Table 25: Parent Agreement Percentages Regarding Awareness of PBIS Practices**

Survey Item	Elem	Middle	High	Total
I am aware of the student behavior expectations at my child’s school.	97%	96%	96%	97%
My child’s school has a system to positively recognize student behavior.	93%	76%	77%	85%

**Support From School Staff.** The *school staff support objective* for the stakeholder involvement goal is **“School staff support the PBIS Tier I implementation at their school as measured by staff survey responses.”** Overall, relatively high percentages of staff agreed that they supported the PBIS implementation at their school (85% of teachers, 99% of administrators, and 90% of other instructional staff). At least 80 percent of staff in each group at each school level expressed support (see Table 26).

**Table 26: Staff Agreement Percentages Regarding Supporting Their School's PBIS Implementation**

Survey Group	Elem	Middle	High	Total
Teachers	88%	88%	80%	85%
Administrators	100%	97%	97%	99%
Other Instructional Staff	92%	86%	88%	90%

When correlating TFI scores for Student/Family/Community Involvement with agreement percentages on related survey items, results showed that schools with higher TFI scores also had higher percentages of parents agreeing that their child's school had a system to positively recognize student behavior ( $r_s = .22$ ).

### Summary of PBIS Implementation Fidelity by School Level and Change in Fidelity During Pandemic

#### Implementation Fidelity by School Level

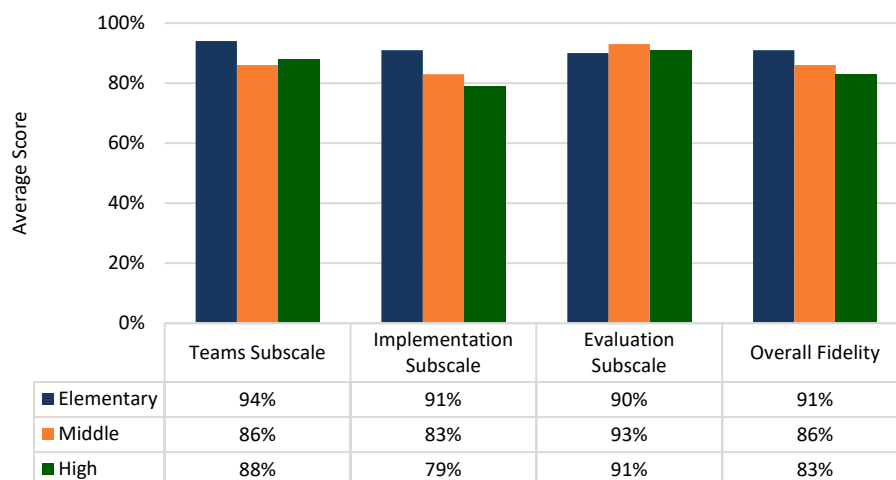
Based on the TFI data collected during 2021-2022 and the fidelity categories that were established based on the research literature, overall, 89 percent of schools (N=75) were in the "High Fidelity" group with an aggregate TFI percentage from 80 to 100. Additionally, 11 percent (N=9) of schools were in the "Adequate Fidelity" group with an aggregate TFI percentage from 70 to 79. No schools were in the "Partial Fidelity" group with an aggregate TFI percentage of 69 or below. Therefore, all school sites had reached high or adequate fidelity in their Tier I PBIS implementation in 2021-2022, which is the recommendation for schools to be considered at or above "adequate" implementation.<sup>51</sup> Table 27 shows the number and percentage of sites at each school level within the fidelity groups.

**Table 27: Sites by Implementation Fidelity Category and School Level**

School Level of Site	High (N=75: 89%)	Adequate (N=9: 11%)	Partial (N=0: 0%)	Total (N=84)
Elementary	53 (95%)	3 (5%)	0 (0%)	56
Middle	13 (81%)	3 (19%)	0 (0%)	16
High	9 (75%)	3 (25%)	0 (0%)	12

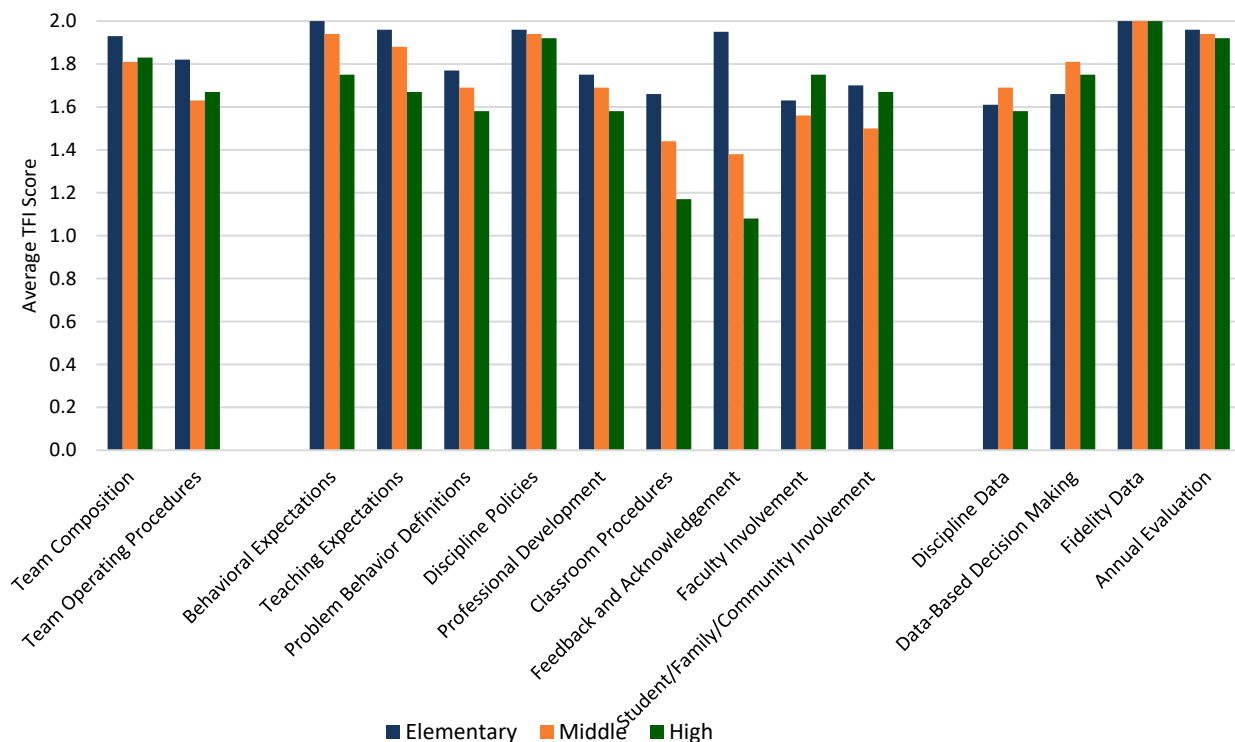
Figure 11 displays the average percentages that schools had on each TFI subscale, as well as the overall aggregate fidelity percentage by school level. On the Evaluation subscale, there was little variation among the school levels (from 90% to 93% average percentages). For the Teams and Implementation subscales as well as overall fidelity, elementary schools had higher average fidelity scores compared to the middle schools and high schools, although schools had at least an average of 79 percent on these subscales and overall at all levels (see Figure 11).

**Figure 11: Average Percentage Scores on TFI Subscales and Overall by School Level**



For the individual TFI features, overall, elementary schools had the highest average scores compared to secondary schools, with the exception of the Faculty Involvement, Discipline Data, and Data-Based Decision Making items (see Figure 12). The items with the largest discrepancies by school level were the Classroom Procedures and Feedback and Acknowledgement items. The items with the lowest average score varied by school level. At the elementary school level, the item with the lowest scores were the Discipline Data (1.61) and Faculty Involvement (1.63). At the secondary levels, the items with the lowest scores were Feedback and Acknowledgement (MS: 1.38; HS: 1.08) and Classroom Procedures (MS: 1.44; HS: 1.17).

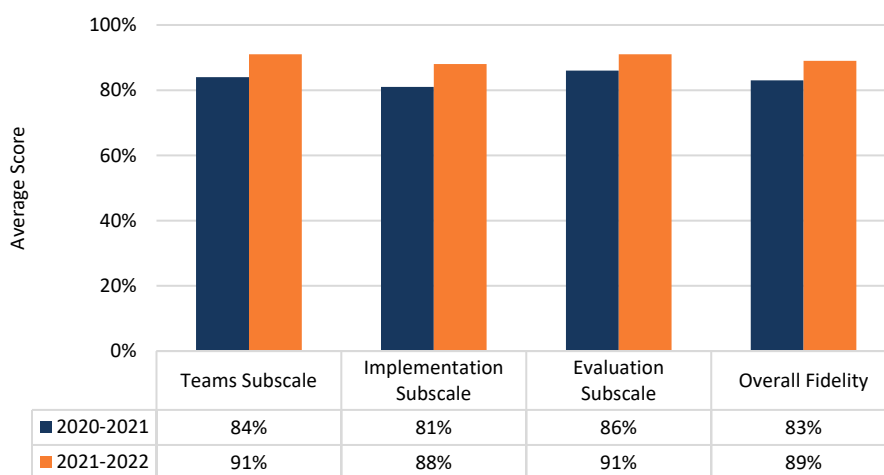
**Figure 12: TFI Average Item Scores by School Level**



### *Change in Fidelity of Tier I Practices by the TFI and Continued Impact of the Pandemic*

Of all 84 sites, 67 percent (N=56) demonstrated an increase in their overall TFI fidelity score while continuing to implement PBIS during the pandemic in 2021-2022. In addition, 21 percent of schools (N=18) had a decrease in their overall TFI fidelity score and 12 percent of schools (N=10) had no change (although three of these schools remained at 100 percent). On the TFI subscales, overall, data showed improvement in all three subscales and in the overall TFI score (see Figure 13).

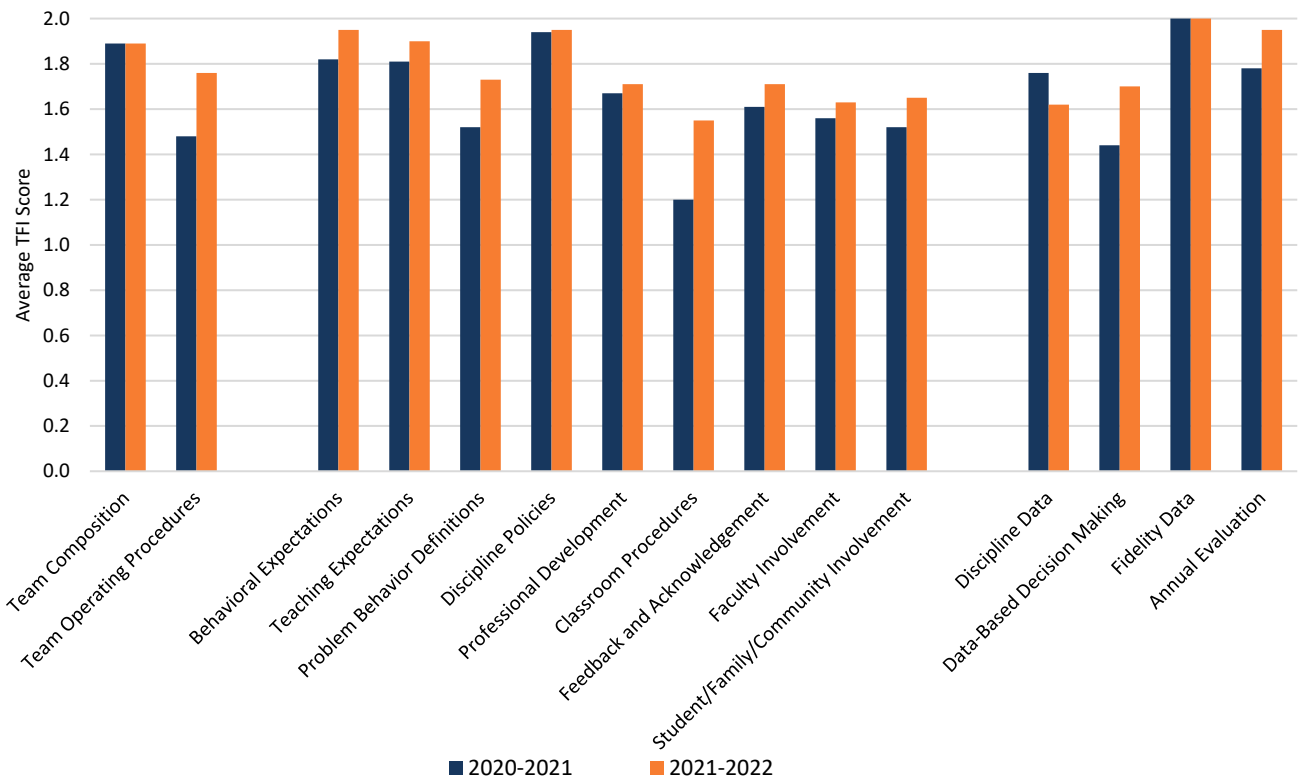
**Figure 13: Change of Average Percentage Scores on TFI Subscales and Overall**



Comparisons by school level showed that there was improvement in all three subscales and in the overall TFI score at all levels, with the exception of the Implementation subscale at the middle school level, which had a decrease of one percentage point from 2020-2021 to 2021-2022 (see Appendix B). There were notable increases at the high school level with increases of 17 to 20 percentage points for the Implementation and Evaluation subscales (see Appendix B).

For the individual TFI features, data demonstrated that schools showed improvements in their PBIS implementation fidelity on twelve of the fifteen features from 2020-2021 to 2021-2022 (see Figure 14). There was no change in the average item score for Team Composition and Fidelity Data (although this was maintained at the maximum score), while there was a decline in the average item score for Discipline Data. This decrease may have been related to the discontinued use of the SWIS product due to lack of alignment with the adjusted statewide coding of discipline data.<sup>52</sup>

**Figure 14: Change of TFI Average Item Scores**



Comparisons by school level showed a similar pattern of results at the elementary school level, with improvements in twelve of the fifteen items, no change in one (although this was maintained at the maximum score), and a decrease in the Discipline Data and Professional Development items (see Appendix B). At the high school level, there were improvements in thirteen items, most of which were notable, and no change in the Feedback and Acknowledgement item and Fidelity Data item (although this was maintained at the maximum score). In contrast, at the middle school level, there were improvements in five of the fifteen items, decreases in seven of the items, and no change for three items. Decreases at the middle school level were found for the following items: Team Composition, Teaching Expectations, Problem Behavior Definitions, Discipline Policies, Feedback and Acknowledgement, Faculty Involvement, and Discipline Data. The most notable decreases were found for Feedback and Acknowledgement (from 1.69 to 1.38) and Discipline Data (from 1.88 to 1.69).

### High School Implementation

One recommendation from the 2020-2021 evaluation focused on continuing to support high schools in implementing core Tier I PBIS practices, including providing professional learning on PBIS topics and ensuring students are taught expectations. The PBIS specialist indicated that actions taken regarding this recommendation during 2021-2022 initially involved planning a high school specific PBIS training; however, due to professional learning being placed on hold, this training was cancelled. As a result of this cancellation, the PBIS division coaching staff developed on-demand modules with resources for all TFI features, which covered the elements of the professional learning session that had been cancelled. The modules were provided through the PBIS Fundamentals: A Learning Series Google site. The website was shared with all high school PBIS teams in October through December 2021. In addition, high school PBIS school team members were invited to attend California Technical Assistance (Cal-TAC) professional development sessions in December 2021 and March 2022. In December 2021, March 2022, and May 2022, the Coaching Connection

newsletter was shared with school teams. In January through April 2022, during the TFI walkthroughs, PBIS division coaching staff attempted to build capacity by having PBIS school team members join when conducting classroom observations, encouraged team members to conduct their own classroom observations, and provided feedback and guidance to team members regarding areas to focus on. Throughout the 2021-2022 school year, the PBIS division coaching staff provided ongoing support as needed, which included sharing additional resources, such as the classroom observation tutorial video, classroom practices handout, and the stakeholder voice handbook. Also, coaching staff provided support through regularly attending monthly meetings and providing resources and consultation as needed. Specific guidance was offered throughout the year on the teaching of expectations, which included encouraging high school teams to do the following: leverage their student group to create videos to teach the expectations, provide a formal written schedule to teach the expectations, and have an “accountability” system for teaching the expectations.

Overall, in comparison to 2020-2021, there was an increase in the percentage of high schools that were implementing PBIS with the highest degree of fidelity (from 25 percent of high schools in 2020-2021 to 75 percent of high schools in 2021-2022). In addition, the average Implementation subscale score on the TFI for high schools increased from 62 percent in 2020-2021 to 79 percent in 2021-2022. As noted above, there were also increases in thirteen of the fifteen TFI items at the high school level. The Teaching Expectations TFI item, which showed the largest discrepancy across levels in 2020-2021, had an increase in the average score for high schools (from 1.17 in 2020-2021 to 1.67 in 2021-2022). However, when teachers and other instructional staff were surveyed about behavioral expectations being explicitly taught to students, 62 to 63 percent of high school teachers and other instructional staff agreed in 2021-2022, which were decreases in comparison to 2020-2021 when 72 to 78 percent of high school teachers and other instructional staff agreed. Regarding professional learning, from 58 to 73 percent of high school teachers and other instructional staff agreed that they received professional learning about teaching schoolwide expectations for behavior, correcting errors in behavior, and requesting assistance for behavior issues in 2021-2022. These were decreases in comparison to 2020-2021 when from 69 to 76 percent agreed. Slightly higher percentages of high school teachers and other instructional staff agreed that they received professional learning about acknowledging appropriate behavior (from 75% to 82%).

## **Alignment Between PBIS and Division Initiatives**

The fourth evaluation question focused on the alignment between PBIS and other related division initiatives (i.e., Student Response Team [SRT], Social-Emotional Learning [SEL], and Culturally Responsive Practices [CRP]). Under *Compass to 2025*, the VBCPS strategic framework, the school division has been working purposefully to align PBIS with SRT, SEL, and CRP.

### **PBIS and Student Response Teams (SRT)**

The VBCPS Student Response Teams (SRT) process involves developing, implementing, and monitoring interventions for students in need of support to promote improvement in students’ behavior, attendance, or academic performance.<sup>53</sup> The SRT process is embedded within a multi-tiered system and begins when students’ needs are not met at the Tier I level. In spring 2021, SRT 2.0, which is part of an integrated system of support for students, was communicated throughout the division. The integrated system of support details tiered systems of support that include PBIS and SRT. When students require PBIS support at the Tier III level, they will receive these supports through their schools’ SRT.

### **PBIS and Social-Emotional Learning (SEL)**

In VBCPS, social-emotional learning (SEL) is defined as “the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set

and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.”<sup>54</sup> SEL has five key competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. According to a guide published by the National Technical Assistance Center on PBIS, SEL competencies can be taught within the PBIS framework.<sup>55</sup> This guide has been offered as a resource for division staff through the PBIS SharePoint site.

On the VBCPS PBIS Resources Google Site, information about student well-being and social emotional learning is provided. On this site, it is noted that “students need to feel safe and have supportive relationships for their social, emotional, and academic learning to be optimized. Multi-tiered Systems of Supports (MTSS), such as PBIS, are ideal frameworks for implementing strategies to support students coming back to school and to prevent and address further challenges.”<sup>56</sup> In addition, through the PBIS Resources Google Site, the PBIS division coaching team provides examples of how SEL can be supported using classroom practices, including through classroom expectations and rules, procedures and routines, behavior feedback – acknowledgement, and behavior feedback – error correction.

### **PBIS and Culturally Responsive Practices (CRP)**

Culturally responsive practices (CRP) in VBCPS “bridge the gap between learning and lived culture by focusing on authentic relationships, student experiences, and pedagogy as a way to strengthen student engagement and build a culture that values both individuality and inclusivity.”<sup>57</sup> A field guide published by the National Technical Assistance Center on PBIS provides a framework for aligning culturally responsive practices to the components of PBIS.<sup>58</sup> This field guide was provided to every school in fall 2020 and made available as a resource for division staff through the PBIS SharePoint site.

In partnership with the Office for Diversity, Equity, and Inclusion, an essential webinar offered initially in August 2020 to school PBIS teams provided details on culturally responsive PBIS in VBCPS.<sup>59</sup> A video of the webinar as well as the PowerPoint slides with links to referenced resources are available on the VBCPS PBIS Fundamentals: A Learning Series Google Site. The webinar included understanding cultural responsiveness within the PBIS framework and the five key components of culturally responsive Tier I PBIS implementation. The primary goal of cultural responsiveness within a PBIS framework is to use PBIS principles to change school cultures and systems to enhance educational equity. Three principles guide work for culturally responsive PBIS: holding high expectations for all students, using students’ cultures and experiences to enhance their learning, and providing all students with access to effective instruction and adequate resources for learning. The webinar detailed examples of ways to address the five components of culturally responsive PBIS: identity, voice, supportive environment, situational appropriateness, and data for equity.

## **Student Demographic Characteristics in PBIS Schools**

The fifth evaluation question focused on the demographic characteristics of the students who are served by PBIS based on schools’ implementation fidelity as measured by the 2021-2022 TFI implementation data. Differences of 5 percentage points or larger will be noted.

As shown in Table 28, schools that implemented PBIS with high fidelity in 2021-2022 had higher percentages of economically disadvantaged students, lower percentages of White students, and lower percentages of gifted students compared to the groups of schools that implemented PBIS with adequate fidelity.

**Table 28: Student Characteristics by Fidelity Group**

Student Characteristics	High Fidelity N=56,013 75 sites (53 ES, 13 MS, 9 HS)	Adequate Fidelity N=7,990 9 sites (3 ES, 3 MS, 3 HS)
<b>Gender</b>		
Female	49%	47%
Male	51%	53%
<b>Ethnicity</b>		
American Indian	< 1%	< 1%
Asian	6%	8%
Black	23%	19%
Hispanic	13%	11%
Native Hawaiian/Pacific Islander	1%	1%
Multiracial	11%	10%
White	46%	51%
<b>Economically Disadvantaged</b>	44%	34%
<b>Students with Disabilities</b>	12%	10%
<b>English Learner Students</b>	7%	5%
<b>Identified Gifted</b>	14%	31%

Note: Based on September 30, 2021 data.

## Progress Toward Meeting Outcome Goals and Objectives

The sixth evaluation question focused on progress made toward meeting the outcome goals and objectives following the implementation of PBIS with fidelity. Due to all school sites scoring at least 70 percent or higher on the TFI, showing that schools were implementing PBIS with the recommended level of implementation fidelity based on research literature,<sup>60</sup> the focus of the results in this section is to examine outcomes for each objective by school level. Additional correlation analyses were conducted between the outcome measures and the schools' TFI subscale percentage scores (i.e., Teams, Implementation, and Evaluation) and the overall TFI aggregate percentage score to provide information about the relationship between survey data and individual school TFI scores. Given the interruption of longitudinal data collection for key outcome measures due to the pandemic and the impact of the pandemic itself on outcome measures, it is not possible at this time to link PBIS implementation with outcomes, given the manner in which PBIS has been implemented in VBCPS (e.g., schools with higher need implemented sooner, relatively large number of high schools recently began implementation in 2019-2020).

### Goal 1: When PBIS is implemented with fidelity, students are engaged at school.

**Objective 1: Students demonstrate school engagement as measured by student attendance and student and teacher survey responses.**

As shown in Table 29, students' overall attendance rate was 94 percent. Results by school level showed a slightly higher attendance rate at the elementary school and middle school levels compared to the high school level.



**Table 29: Attendance Rates by School Level**

Elem	Middle	High	Total
94.0%	93.9%	92.4%	93.5%

Students and teachers were surveyed about student engagement in school. Overall, 90 percent of students agreed that they were engaged in their learning by participating and working hard in school. Additionally, 76 percent of teachers agreed that students at their school were engaged in their learning by participating and working hard in school. Survey agreement percentages by school level are shown in Table 30. Students and teachers at elementary schools had the highest agreement percentages regarding student school engagement, followed by middle schools and high schools.

**Table 30: Student and Teacher Agreement Regarding School Engagement by School Level**

Survey Group and Item	Elem	Middle	High	Total
Students - I am engaged in my learning by participating and working hard in school.	95%	90%	86%	90%
Teachers - Students at this school are engaged in their learning by participating and working hard in school.	92%	70%	66%	76%

The relationship between school engagement survey results and TFI subscale and overall Aggregate percentages were analyzed using correlations. Statistically significant correlations for total agreement are shown in Table 31. Schools that had higher TFI scores also had higher percentages of students and teachers agreeing that students were engaged in school. The strength of the correlations was moderate.

**Table 31: Correlations Between Student School Engagement Survey Data and TFI Scores**

Group	Agreement	Survey Item	Subscale or Aggregate	Correlation Value	Description <sup>61</sup>
Student	Total Agreement	I am engaged in my learning by participating and working hard in school.	Implementation Aggregate	.436 .376	Moderate Moderate
Teacher	Total Agreement	Students at this school are engaged in their learning by participating and working hard in school.	Implementation Aggregate	.371 .304	Moderate Moderate

## **Objective 2: Students demonstrate academic engagement in the classroom as measured by student and teacher survey responses.**

Students and teachers were surveyed about student engagement in the classroom. Overall, 88 percent of students agreed that they were engaged in classroom lessons, and 83 percent of teachers agreed that students were engaged in classroom lessons. Agreement percentages by school level showed that higher percentages of elementary school students and teachers agreed with these items regarding student academic engagement than secondary students and teachers (see Table 32).

**Table 32: Student and Teacher Agreement Percentages Regarding Academic Engagement by School Level**

Survey Group and Item	Elem	Middle	High	Total
Students - I am engaged in classroom lessons.	93%	88%	85%	88%
Teachers - Students are engaged in classroom lessons.	96%	78%	74%	83%

The relationship between academic engagement survey results and TFI subscale and overall Aggregate percentages were analyzed using correlations. Statistically significant correlations for total agreement are shown in Table 33. Schools that had higher TFI scores also had higher percentages of students and teachers agreeing that students were engaged in classroom lessons. For students, the strength of the correlations was moderate.

**Table 33: Correlations Between Student Academic Engagement Survey Data and TFI Scores**

Group	Agreement	Survey Item	Subscale or Aggregate	Correlation Value	Description
Student	Total Agreement	I am engaged in classroom lessons.	Implementation Aggregate	.458 .436	Moderate Moderate
Teacher	Total Agreement	Students are engaged in classroom lessons.	Implementation Aggregate	.359 .290	Moderate Weak

### *Perceptions of PBIS Effectiveness on Student Engagement*

Teachers, administrators, and other instructional staff were also surveyed about the effectiveness of PBIS on improving student attendance and student engagement. Regarding student attendance, overall, 68 percent of administrators indicated PBIS practices improved attendance to a large or moderate extent, while 52 percent of other staff and 40 percent of teachers indicated PBIS improved attendance to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved attendance to a large or moderate extent compared to secondary staff (see Table 34).

**Table 34: Percentages of Staff Indicating PBIS Practices Improve Student Attendance**

PBIS practices improve student attendance to a large or moderate extent	Elem	Middle	High	Total
Teachers	46%	36%	39%	40%
Administrators	80%	64%	48%	68%
Other Instructional Staff	56%	48%	38%	52%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 19 to 23 percent of teachers, 6 to 12 percent of administrators, and 23 to 32 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

Regarding student engagement, overall, 81 percent of administrators indicated PBIS practices improved student engagement at school to a large or moderate extent, while 63 percent of other staff and 51 percent of teachers indicated PBIS improved student engagement at school to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved student engagement to a large or moderate extent compared to secondary staff (see Table 35).

**Table 35: Percentages of Staff Indicating PBIS Practices Improve Student Engagement**

PBIS practices improve student engagement at school to a large or moderate extent	Elem	Middle	High	Total
Teachers	64%	46%	40%	51%
Administrators	97%	77%	50%	81%
Other Instructional Staff	70%	55%	41%	63%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 5 to 19 percent of teachers, 0 to 3 percent of administrators, and 11 to 32 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for teachers and other instructional staff and at the elementary school level for administrators.

The relationship between staff survey results on the effectiveness of PBIS on student engagement and TFI subscale and overall Aggregate percentages were analyzed using correlations. Statistically significant correlations for percentages of staff indicating PBIS improves engagement to a large or moderate extent are shown in Table 36. Schools that had higher TFI scores also had higher percentages of staff indicating that PBIS improves student attendance and student engagement at school to a large or moderate extent. The strength of the correlations was moderate.

**Table 36: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve attendance to a large or moderate extent.	Implementation Aggregate	.316 .308	Moderate Moderate
Staff	Large or moderate	PBIS practices improve student engagement at school to a large or moderate extent.	Implementation Aggregate	.385 .374	Moderate Moderate

**Goal 2: When PBIS is implemented with fidelity, students and teachers have positive perceptions of school safety and discipline procedures.**

**Objective 1: The school is a safe and orderly place to learn as measured by student and teacher survey responses.**

Students and teachers were surveyed about their perceptions of school safety. Overall, 91 percent of students and 89 percent of teachers agreed that their school provides a safe and orderly place to learn. Results by school level showed elementary school students had higher agreement percentages than secondary students, while high school and elementary school teachers had higher agreement percentages than middle school teachers (see Table 37).

**Table 37: Student and Teacher Agreement Percentages Regarding School Safety by School Level**

Survey Group and Item	Elem	Middle	High	Total
Students - My school provides a safe and orderly place for me to learn.	96%	90%	89%	91%
Teachers - This school provides a safe and orderly place for students to learn.	91%	82%	94%	89%

The relationship between school safety survey results and TFI subscale and overall Aggregate percentages were analyzed using correlations. Statistically significant correlations for total and strong agreement are shown in Table 38. Schools that had higher TFI scores also had higher percentages of students agreeing that their school provided a safe and orderly place for them to learn. Schools that had higher TFI scores also had higher percentages of teachers *strongly* agreeing that their school was a safe and orderly place for students to learn. For students, the strength of the correlations was moderate.

**Table 38: Correlations Between Student School Safety Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Student	Total Agreement	My school provides a safe and orderly place for me to learn.	Implementation Aggregate	.439 .373	Moderate Moderate
Teacher	Strong Agreement	My school provides a safe and orderly place for students to learn.	Implementation Evaluation Aggregate	.236 .244 .245	Weak Weak Weak

**Objective 2: Bullying is not perceived to be a problem at the school as measured by student and teacher survey responses.**

Students and teachers were surveyed about their perceptions of bullying at their school. Overall, 45 percent of students indicated they were not sure if bullying was a problem at their school, while similar percentages of students indicated bullying **was** (27%) and **was not** a problem (28%) (see Table 39). Consistent with the results overall, the highest percentage of students at all levels indicated that they were not sure if bullying was a problem at their school (from 42% to 48%). At the high school level, 31 percent of high school students

indicated that bullying **was not** a problem compared to 21% indicating it **was** a problem. In contrast, a slightly higher percentage of middle school students indicated bullying **was** a problem (32%) compared to those who indicated bullying **was not** a problem (25%). Relatively similar percentages of elementary school students indicated bullying **was** (30%) and **was not** a problem (28%).

Overall, slightly higher percentages of teachers indicated that bullying **was not** a problem (35%) or that they were not sure (36%) compared to teachers who indicated that bullying **was** a problem (29%). Teacher responses varied by school level (see Table 39). Nearly half of elementary school teachers indicated that bullying **was not** a problem (46%), while nearly half of middle school teachers indicated bullying **was** a problem (47%). In contrast, nearly half of high school teachers indicated they were not sure whether bullying was a problem (45%).

**Table 39: Student and Teacher Agreement Percentages Regarding Bullying by School Level**

Response Option	Students				Teachers			
	Elem	Middle	High	Total	Elem	Middle	High	Total
Yes, a Problem	30%	32%	21%	27%	23%	47%	20%	29%
Not a Problem	28%	25%	31%	28%	46%	20%	35%	35%
Not Sure	42%	43%	48%	45%	31%	33%	45%	36%

Teacher and student responses regarding this item were not significantly correlated (i.e., related) with TFI subscale or aggregate scores.

**Objective 3: There are high expectations for student behavior at the school as measured by student and teacher survey responses.**

Students and teachers were surveyed about their perceptions of expectations for student behavior. Overall, 88 percent of students and 77 percent of teachers agreed that there were high expectations for student behavior at their school. Agreement percentages by school level showed higher percentages of elementary school students and teachers agreed than secondary students and teachers (see Table 40).

**Table 40: Student and Teacher Agreement Percentages Regarding Expectations for Student Behavior by School Level**

Survey Group and Item	Elem	Middle	High	Total
Students - There are high expectations for student behavior at this school.	93%	89%	84%	88%
Teachers - There are high expectations for student behavior at this school.	87%	73%	72%	77%

The relationship between survey results about high expectations and TFI subscale and overall Aggregate percentages were analyzed using correlations. Statistically significant correlations for total agreement are shown in Table 41. Schools that had higher TFI scores also had higher percentages of students and teachers agreeing that there were high expectations for student behavior at their school. The strength of the correlations was moderate.

**Table 41: Correlations Between Student Expectations for Behavior Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Student	Total Agreement	There are high expectations for student behavior at this school.	Implementation	.372	Moderate
			Aggregate	.321	Moderate
Teacher	Total Agreement	There are high expectations for student behavior at this school.	Implementation	.394	Moderate
			Aggregate	.347	Moderate

**Objective 4: Students know the consequences of misbehaving at their school as measured by student and teacher survey responses.**

Students and teachers were surveyed about their perceptions of student awareness of consequences for misbehaving. Overall, 92 percent of students agreed that they knew the consequences for misbehaving at their school, while 67 percent of teachers agreed that students knew the consequences for misbehaving at their school. Slightly higher percentages of elementary school (93%) and middle school students (93%) agreed than high school students (90%), whereas a higher percentage of high school teachers agreed (69%), followed by middle school teachers (67%), and elementary school teachers (65%) (see Table 42).

**Table 42: Student and Teacher Agreement Percentages Regarding Student Awareness of Consequences by School Level**

Survey Group and Item	Elem	Middle	High	Total
Students - I know the consequences for misbehaving at this school.	93%	93%	90%	92%
Teachers - Students know the consequences for misbehaving at this school.	65%	67%	69%	67%

The relationship between survey results about student awareness of consequences for misbehaving and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of students who agreed that they were aware of consequences for misbehaving, with the relationships being moderate in strength (see Table 43). Teacher agreement for this item was not significantly correlated with TFI subscale or aggregate scores.

**Table 43: Correlations Between Student Awareness of Consequences Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Student	Total Agreement	I know the consequences for misbehaving at this school.	Implementation	.317	Moderate
			Aggregate	.304	Moderate

**Objective 5: Teachers indicate that the rules for student behavior are effective as measured by teacher survey responses.**

Teachers were surveyed about the effectiveness of the rules for student behavior. Overall, 61 percent of teachers agreed that the rules for student behavior are effective at their school. Agreement percentages by school level showed that elementary school teachers had higher agreement percentages than secondary teachers (see Table 44).

**Table 44: Teacher Agreement Percentages Regarding Rules for Student Behavior Being Effective by School Level**

Survey Item	Elem	Middle	High	Total
The rules for student behavior are effective at this school.	69%	55%	58%	61%

The relationship between survey results about effectiveness of rules for student behavior and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of teachers who agreed that the rules for student behavior are effective, with the relationships being weak in strength (see Table 45).

**Table 45: Correlations Between Teacher Behavior Rule Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Teacher	Total Agreement	The rules for student behavior are effective at this school.	Implementation	.281	Weak
			Aggregate	.258	Weak

## Perceptions of PBIS Effectiveness on School Safety and Discipline Procedures

Teachers, administrators, and other instructional staff were surveyed about the effectiveness of PBIS on improving school safety and the consistency of discipline procedures. Regarding school safety, overall, 86 percent of administrators indicated PBIS practices improved school safety to a large or moderate extent, while 65 percent of other staff and 57 percent of teachers indicated PBIS improved school safety to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved school safety to a large or moderate extent compared to secondary staff (see Table 46).

**Table 46: Percentages of Staff Indicating PBIS Practices Improve School Safety**

PBIS practices improve school safety to a large or moderate extent	Elem	Middle	High	Total
Teachers	67%	51%	51%	57%
Administrators	99%	83%	63%	86%
Other Instructional Staff	72%	55%	46%	65%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 6 to 20 percent of teachers, 0 to 3 percent of administrators, and 10 to 32 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

Regarding the consistency of discipline practices, overall, 90 percent of administrators indicated PBIS practices improved discipline practice consistency to a large or moderate extent, while 61 percent of other staff and 50 percent of teachers indicated PBIS improved discipline practice consistency to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved discipline practice consistency to a large or moderate extent compared to secondary staff (see Table 47).

**Table 47: Percentages of Staff Indicating PBIS Practices Improve Consistency of Discipline Procedures**

PBIS practices improve consistency of discipline procedures to a large or moderate extent	Elem	Middle	High	Total
Teachers	59%	45%	43%	50%
Administrators	99%	83%	77%	90%
Other Instructional Staff	67%	51%	46%	61%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 6 to 19 percent of teachers, 0 to 6 percent of administrators, and 10 to 35 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

The relationship between staff survey results about the effectiveness of PBIS on school safety and discipline practices and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of staff who indicated PBIS practices improve school safety and consistency of discipline practices to a large or moderate extent (see Table 48). Most correlations were moderate in strength.

**Table 48: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve school safety to a large or moderate extent.	Implementation	.339	Moderate
			Evaluation	.238	Weak
			Aggregate	.342	Moderate
Staff	Large or moderate	PBIS practices improve consistency of discipline practices to a large or moderate extent.	Implementation	.340	Moderate
			Aggregate	.327	Moderate

**Goal 3: When PBIS is implemented with fidelity, students learn to regulate their emotions and demonstrate social-emotional competence.**

**Objective 1: Students successfully regulate their emotions as measured by student self-management aggregate ratings on the student VBCPS Social-Emotional Learning (SEL) survey.**

Overall, 79 percent of the student responses to the self-management items were agreement responses on the VBCPS SEL survey. As shown in Table 49, comparisons by school level showed a higher percentage of student agreement responses to the self-management items at the high school level compared to the elementary school and middle school levels.

**Table 49: Percentages of Self-Management Item Responses With Agreement by School Level**

SEL Competency	Elem	Middle	High	Total
Self-management	78%	77%	82%	79%

**Objective 2: Students demonstrate social-emotional competence as measured by student SEL aggregate ratings in self-awareness, social awareness, relationship skills, and responsible decision making on the student VBCPS SEL survey.**

Overall, 89 percent of the student responses to the self-awareness items, 91 percent of the social awareness items, 85 percent of the relationship skills items, and 85 percent of the responsible decision-making items were agreement responses on the VBCPS SEL survey. Aggregated ratings for the SEL competencies are shown in Table 50 by school level. For each of the competencies, there was little variability in the percentage of responses that were agreement responses on the self-awareness items. For social awareness and relationship skills, a higher percentage of responses were agreement responses at the elementary school level than the middle school and high school levels, although the difference was slight for social awareness. For responsible decision making, a higher percentage of responses were agreement responses at the high school level than the elementary school and middle school levels (see Table 50).

**Table 50: Percentages of SEL Item Responses With Agreement by School Level**

SEL Competency	Elem	Middle	High	Total
Self-awareness	89%	89%	90%	89%
Social awareness	93%	91%	91%	91%
Relationship skills	88%	84%	85%	85%
Responsible decision making	84%	84%	88%	85%

The correlations between agreement percentages on SEL competency items and TFI subscale and overall Aggregate TFI scores were analyzed. Schools that had higher TFI scores also had higher student agreement percentages on social awareness and relationship skill items (see Table 51). The correlations were moderate in strength. Student agreement on the other social-emotional competencies was not significantly correlated with TFI subscale or aggregate scores.

**Table 51: Correlations Between SEL Survey Data and TFI Scores**

SEL Competency	Subscale or Aggregate	Correlation Value	Description
Social awareness	Implementation	.362	Moderate
	Aggregate	.313	Moderate
Relationship skills	Implementation	.376	Moderate
	Aggregate	.326	Moderate



### *Perceptions of PBIS Effectiveness on Student Social-Emotional Competence*

Teachers, administrators, and other instructional staff were also surveyed about the effectiveness of PBIS on improving students' emotion regulation skills and social-emotional competence. Regarding students' emotion regulation skills, overall, 83 percent of administrators indicated PBIS practices improved emotion regulation skills to a large or moderate extent, while 60 percent of other staff and 48 percent of teachers indicated PBIS improved students' emotion regulation skills to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved students' emotion regulation skills to a large or moderate extent compared to secondary staff (see Table 52).

**Table 52: Percentages of Staff Indicating PBIS Practices Improve Student Emotion Regulation**

PBIS practices improve students' emotion regulation skills to a large or moderate extent	Elem	Middle	High	Total
Teachers	58%	42%	40%	48%
Administrators	97%	79%	56%	83%
Other Instructional Staff	65%	55%	42%	60%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 5 to 22 percent of teachers, 1 to 3 percent of administrators, and 11 to 33 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

Regarding students' social emotional competence, overall, 84 percent of administrators indicated PBIS practices improved students' social emotional competence to a large or moderate extent, while 62 percent of other staff and 50 percent of teachers indicated PBIS improved students' social emotional competence to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved students' social emotional competence to a large or moderate extent compared to secondary staff (see Table 53).

**Table 53: Percentages of Staff Indicating PBIS Practices Improve Student Social-Emotional Competence**

PBIS practices improve students' social-emotional competence to a large or moderate extent	Elem	Middle	High	Total
Teachers	60%	44%	42%	50%
Administrators	97%	82%	56%	84%
Other Instructional Staff	68%	55%	45%	62%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 5 to 21 percent of teachers, 1 to 3 percent of administrators, and 11 to 34 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

The relationship between staff survey results about the effectiveness of PBIS on student emotion regulation and social-emotional competence and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of staff who indicated PBIS practices improve student emotion regulation and social-emotional competence to a large or moderate extent (see Table 54). Most correlations were moderate in strength.

**Table 54: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve students' emotion regulation to a large or moderate extent.	Implementation	.385	Moderate
			Evaluation	.240	Weak
			Aggregate	.371	Moderate
Staff	Large or moderate	PBIS practices improve students' social-emotional competence to a large or moderate extent.	Implementation	.388	Moderate
			Evaluation	.231	Weak
			Aggregate	.375	Moderate

**Goal 4: When PBIS is implemented with fidelity, students and teachers have positive perceptions of school climate.**

**Objective 1: Students have positive relationships with peers as measured by student survey responses.**

Students were surveyed about their perceptions of having positive relationships with other students. Overall, 88 percent of students agreed that they had positive relationships with other students at their school with little variation by school level (see Table 55).

**Table 55: Student Agreement Percentages Regarding Having Positive Relationships With Other Students by School Level**

Survey Item	Elem	Middle	High	Total
I have positive relationships with other students at this school.	89%	87%	89%	88%

The relationship between survey results about positive relationships with students and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of students who agreed that they had positive relationships with other students, although the relationships were weak in strength (see Table 56).

**Table 56: Correlations Between Student Positive Relationships Survey Data and TFI Scores**

Group	Agreement	Survey Item	Subscale or Aggregate	Correlation Value	Description
Student	Total Agreement	I have positive relationships with other students at this school.	Implementation	.276	Weak
			Evaluation	.253	Weak
			Aggregate	.270	Weak

**Objective 2: Teachers are treated with respect by students and supported by school administrators as measured by teacher survey responses.**

Teachers were surveyed about their perceptions of being treated with respect by students and supported by administrators. Overall, 85 percent of teachers agreed that students at their school treated them with respect and 79 percent agreed that they felt supported by school administrators at their school. Agreement percentages by school level showed higher percentages of elementary school and high school teachers agreed students treated them with respect and felt supported by school administrators compared to middle school teachers (see Table 57).

**Table 57: Teacher Agreement Percentages Regarding Being Treated With Respect and Supported by Implementation Fidelity Group**

Survey Item	Elem	Middle	High	Total
Students at this school treat me with respect.	88%	78%	89%	85%
I feel supported by school administrators at this school.	79%	75%	83%	79%

The relationship between survey results about teachers being treated with respect and TFI subscale and overall Aggregate percentages were analyzed using correlations. There were no statistically significant correlations for total agreement, but one for the percentage of teachers who strongly agreed with the survey item (see Table 58). Schools that had higher TFI scores also had higher percentages of teachers who strongly agreed that students treat them with respect, although this relationship was weak in strength. Teacher agreement regarding feeling supported by school administrators was not significantly correlated with TFI subscale or Aggregate scores.

**Table 58: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Agreement	Survey Item	Subscale or Aggregate	Correlation Value	Description
Teacher	<i>Strong Agreement</i>	Students at this school treat me with respect.	Implementation	.224	Weak

**Objective 3: Teachers and other adults support one another to meet the needs of all students as measured by teacher survey responses.**

Teachers were surveyed about their perceptions of teachers supporting one another to meet students' needs. Overall, 88 percent of teachers agreed that teachers and other adults at their school supported one another to meet the needs of all students. Agreement percentages by school level showed that highest agreement was at the elementary school level, while lowest agreement was at the middle school level (see Table 59). Teacher agreement regarding this item was not significantly correlated with TFI subscale or Aggregate scores.

**Table 59: Teacher Agreement Percentages Regarding Teachers Supporting One Another to Meet Student Needs by School Level**

Survey Item	Elem	Middle	High	Total
Teachers and other adults at my school support one another to meet the needs of all students.	91%	84%	88%	88%

**Perceptions of PBIS Effectiveness on School Climate**

Teachers, administrators, and other instructional staff were also surveyed about the effectiveness of PBIS on improving school climate and student and teacher relationships. Regarding school climate, overall, 84 percent of administrators indicated PBIS practices improved school climate to a large or moderate extent, while 63 percent of other staff and 52 percent of teachers indicated PBIS improved school climate to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved school climate to a large or moderate extent compared to secondary staff (see Table 60).

**Table 60: Percentages of Staff Indicating PBIS Practices Improve School Climate**

PBIS practices improve school climate to a large or moderate extent	Elem	Middle	High	Total
Teachers	61%	48%	44%	52%
Administrators	97%	83%	56%	84%
Other Instructional Staff	70%	52%	43%	63%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 4 to 17 percent of teachers, 0 to 3 percent of administrators, and 7 to 30 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

Regarding student and teacher relationships, overall, 86 percent of administrators indicated PBIS practices improved student and teacher relationships to a large or moderate extent, while 67 percent of other staff and

58 percent of teachers indicated PBIS improved student and teacher relationships to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved student and teacher relationships to a large or moderate extent compared to secondary staff (see Table 61).

**Table 61: Percentages of Staff Indicating PBIS Practices Improve Student and Teacher Relationships**

PBIS practices improve student and teacher relationships to a large or moderate extent	Elem	Middle	High	Total
Teachers	69%	55%	49%	58%
Administrators	97%	83%	66%	86%
Other Instructional Staff	72%	61%	49%	67%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 4 to 17 percent of teachers, 0 to 3 percent of administrators, and 10 to 33 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

The relationship between staff survey results on the effectiveness of PBIS on school climate and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of staff who indicated PBIS practices improve school climate and student and teacher relationships to a large or moderate extent (see Table 62). Most correlations were moderate in strength.

**Table 62: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve school climate to a large or moderate extent.	Implementation Aggregate	.367 .365	Moderate Moderate
Staff	Large or moderate	PBIS practices improve student and teacher relationships to a large or moderate extent.	Implementation Evaluation Aggregate	.433 .239 .442	Moderate Weak Moderate

## Additional Analyses Related to Goals and Objectives

### Matched School Case Study Approach

The matched school case study approach involved examining the perceptions of students and teachers from schools that had differing implementation fidelity (i.e., High Fidelity, Adequate Fidelity) but had other similarities, including their student demographic characteristics. Similar schools were selected based on a previously run comparable schools analysis.<sup>62</sup> The purpose of this analysis was to examine data related to the goals and objectives for comparable schools that had differing TFI fidelity.

Overall, the results of the matched school case study analyses showed that there was not a consistent pattern across all school levels suggesting that schools with High Fidelity had higher teacher and student agreement percentages than schools with Adequate Fidelity on survey items related to the outcome goals and objectives. However, there was a pattern across two school levels showing schools with High Fidelity had higher teacher agreement on two teacher survey items. For the teacher survey items regarding students knowing the consequences for misbehaving and the rules for student behavior being effective, schools with High Fidelity had higher teacher agreement percentages than schools with Adequate Fidelity at two of the three school levels, elementary school and high school. There were notably large differences in agreement percentages at the elementary school level in favor of the elementary school that was in the High Fidelity PBIS implementation category.

Although there was not a consistent pattern across all school levels suggesting that schools implementing PBIS with High Fidelity had more positive perceptions about student engagement, student social-emotional

competence, school safety and discipline, and school climate, perceptions about the effectiveness of rules and student awareness of rules may be linked to PBIS implementation fidelity at certain levels. It is important to note that although the schools included in the analyses had similar student characteristics and differ in their TFI fidelity, it is possible that there are other factors beyond TFI fidelity accounting for the differences across the schools in teacher and student perceptions in these areas. In addition, these findings could be related to the research literature showing that PBIS fidelity levels of 80 percent or higher, as well as PBIS fidelity levels of 70 to 79 percent, are both adequate to foster positive results.

### ***School Goal Analyses Related to Division PBIS Goals***

During the 2021-2022 school year, schools were provided the opportunity to identify a PBIS-related goal or set of goals that were a focus for their school during 2021-2022. Within a Google form, schools were asked to identify their school goal/focus area, data source(s), and outcome(s). Office of Research and Evaluation staff coded the information provided in the Google form to determine which evaluation goal(s) and objective(s) aligned with the school-identified goals. Four schools had noted goals that were unable to be aligned to the goals and objectives in this evaluation. An additional ten schools did not have an identified PBIS-related goal for the 2021-2022 school year (five schools indicated they did not have a goal, five schools did not complete the Google form). Staff survey data were analyzed specifically for the items that were related to the school-specific goal. The purpose of this analysis was to examine staff survey data related to the schools' identified goal areas as a more targeted approach to assess the progress made toward meeting division PBIS goals.

Overall, 6 schools had a goal related to student engagement, 38 schools had a goal related to safety procedures and school climate, and 22 schools had a goal related to social-emotional competence. Numbers and percentages of schools that identified each goal area are shown by school level in Table 63. For the student engagement goal, schools primarily identified their goal to be specific to improving student attendance. For the safety procedures and school climate goal, schools were assessed on perceptions related to both the safety and discipline procedures and school climate division PBIS evaluation goals.

**Table 63: Numbers and Percentages of Schools By School Goal Area Related to PBIS Division Goals**

<b>School Level of Site</b>	<b>Student Engagement Goal (Goal 1)</b>	<b>School Safety and Climate Goal (Goals 2 and 4)</b>	<b>Social-Emotional Competence Goal (Goal 3)</b>	<b>Total Schools</b>
Elementary	3 (5%)	23 (41%)	14 (25%)	56
Middle	1 (6%)	5 (31%)	4 (25%)	16
High	2 (17%)	10 (83%)	4 (33%)	12
Total	6 (7%)	38 (45%)	22 (26%)	84

Table 64 provides a summary of the pattern of results for the school goal analyses related to the division PBIS goals. See Appendix C for detailed results by goal area and school level. For student engagement/attendance, there was some evidence at the elementary school and middle school levels that schools with a goal in this area had more positive perceptions that PBIS was effective in improving this area compared to all schools, but this was more consistent at the elementary school level. Similarly, for school safety and climate, there was evidence at the elementary school and middle school levels that schools with a goal in this area had more positive perceptions that PBIS was effective in improving this area compared to all schools, but this pattern was most consistent at the middle school level. For social-emotional competence, there was some evidence at each level that schools with a goal in this area had more positive perceptions that PBIS was effective in improving this area, but this was more consistent at the secondary levels. Overall, the results suggest that staff at schools with a school goal focused on specific areas had more positive perceptions of PBIS impacting these

goal areas, especially at the elementary and middle school levels. At the high school level, this pattern was only found for the goal focused on students' social-emotional competence.

**Table 64: Summary of Results for School Goal Analyses Related to Division PBIS Goals**

Measure: Schools with goal had higher percentages than division	Elem	Middle	High
<b>Student Engagement/Attendance Goal</b>			
Perception PBIS practices improve attendance	✓	✓	✗
Perception PBIS practices improve student engagement	✓	✗	✗
<b>School Safety and Climate Goal</b>			
Perception PBIS practices improve school safety	✗	✓	✗
Perception PBIS practices improve consistency of discipline procedures	✓	✓	✗
Perception PBIS practices improve school climate	✓	✓	✗
Perception PBIS practices improve student and teacher relationships	✓	✓	✗
<b>Social-Emotional Competence Goal</b>			
Perception PBIS practices improve emotion regulation	✓	✓	✓
Perception PBIS practices improve social-emotional competence	✗	✓	✓

## PBIS and Student Academic Achievement, Student Behavior, and Teacher Retention

Although student achievement, student behavior, and teacher retention data are often used as indicators for evaluating PBIS, based on input from the VBCPS PBIS Evaluation Readiness Committee, discipline and academic achievement measures, as well as teacher retention measures, were not specifically considered as outcome goals of PBIS implementation in VBCPS. Instead, outcome goals focused on other frequently noted outcomes such as student engagement, social and emotional learning outcomes, and student and teacher perceptions of school safety and climate. However, the evaluation plan included an examination of the relationship between PBIS implementation and academic achievement, student behavior, and teacher retention data as part of an evaluation question.

Overall perceptions of staff from all schools are provided regarding the effectiveness of PBIS on improving student academic achievement and student behavior and reducing discipline referrals. Additional correlation analyses were conducted between perceptions of the impact of PBIS effectiveness on these areas and the schools' TFI subscale percentage scores (i.e., Teams, Implementation, and Evaluation) and the overall TFI Aggregate percentage score to provide information about the relationship between survey data and individual school TFI scores.

In addition, to further examine the relationship between PBIS implementation and student academic achievement, disciplinary referrals, and disciplinary outcome decisions, student academic and discipline data and staff perceptions were analyzed only for schools that had an identified goal in these areas. Although schools were not specifically asked to indicate a goal related to teacher retention, schools with a safety procedures and school climate goal were assessed on teacher retention due to the potential relationship between teacher retention and these areas. As shown in Table 65, 6 schools identified a school goal related to academic achievement, while 40 schools identified a school goal related to discipline. An additional 5 schools specifically indicated that they had a goal related to discipline disproportionality. In addition, as previously noted, 38 schools identified a school goal related to safety procedures and school climate.

**Table 65: Numbers and Percentages of Schools by School Goal Area Related to Academics, Discipline, and Climate**

School Level of Site	Academic Achievement Goal	Discipline Goal	Discipline Disproportionality Goal	School Safety and Climate Goal	Total Schools
Elementary	2 (4%)	32 (57%)	4 (7%)	23 (41%)	56
Middle	2 (13%)	5 (31%)	1 (6%)	5 (31%)	16
High	2 (17%)	3 (25%)	0 (0%)	10 (83%)	12
Total	6 (7%)	40 (48%)	5 (6%)	38 (45%)	84

Student academic achievement was assessed through performance on the Reading Inventory (RI) and the English and math Standards of Learning (SOL) assessments. Student disciplinary referral data included the percent of enrolled students with at least one referral and average number of referrals per referred student, and student suspension data were used to examine disciplinary outcomes, including the percent of referred students with at least one suspension and average number of suspensions per suspended student. To assess discipline disproportionality, student referral and suspension ratios were examined for select student groups. Discipline ratios provide a broad measure of discipline disparity where referrals and suspensions are compared for two student groups. Finally, the percentage of teachers who remained in the school division during the school year was used to examine teacher retention.

### Perceptions of PBIS Effectiveness and Correlations with TFI

#### Academic Achievement

Teachers, administrators, and other instructional staff were surveyed about the effectiveness of PBIS on improving student academic achievement. Regarding student academic achievement, overall, 79 percent of administrators indicated PBIS practices improved student academic achievement to a large or moderate extent, while 61 percent of other staff and 50 percent of teachers indicated PBIS improved student academic achievement to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved student academic achievement to a large or moderate extent compared to secondary staff (see Table 66).

**Table 66: Percentages of Staff Indicating PBIS Practices Improve Student Academic Achievement**

PBIS practices improve student academic achievement to a large or moderate extent	Elem	Middle	High	Total
Teachers	60%	43%	44%	50%
Administrators	94%	71%	58%	79%
Other Instructional Staff	66%	52%	49%	61%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 8 to 21 percent of teachers, 3 to 6 percent of administrators, and 16 to 32 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

The relationship between staff survey results on the effectiveness of PBIS on academic achievement and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of staff who indicated PBIS practices improved academic achievement to a large or moderate extent (see Table 67). Most correlations were moderate in strength.



**Table 67: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve academic achievement to a large or moderate extent.	Implementation	.368	Moderate
			Evaluation	.229	Weak
			Aggregate	.377	Moderate

### *Discipline*

Teachers, administrators, and other instructional staff were surveyed about the effectiveness of PBIS on improving student behavior and reducing discipline referrals. Regarding student behavior, overall, 88 percent of administrators indicated PBIS practices improved student behavior to a large or moderate extent, while 63 percent of other staff and 54 percent of teachers indicated PBIS improved student behavior to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices improved student behavior to a large or moderate extent compared to secondary staff (see Table 68).

**Table 68: Percentages of Staff Indicating PBIS Practices Improve Student Behavior**

PBIS practices improve student behavior to a large or moderate extent	Elem	Middle	High	Total
Teachers	64%	50%	46%	54%
Administrators	99%	86%	69%	88%
Other Instructional Staff	69%	53%	46%	63%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 4 to 18 percent of teachers, 0 to 3 percent of administrators, and 8 to 26 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

Regarding discipline referrals, overall, 78 percent of administrators indicated PBIS practices reduced discipline referrals to a large or moderate extent, while 60 percent of other staff and 50 percent of teachers indicated PBIS reduced discipline referrals to this extent. Results by school level showed that higher percentages of elementary school staff indicated that PBIS practices reduced discipline referrals to a large or moderate extent compared to secondary staff (see Table 69).

**Table 69: Percentages of Staff Indicating PBIS Practices Reduce Discipline Referrals**

PBIS practices reduce discipline referrals to a large or moderate extent	Elem	Middle	High	Total
Teachers	58%	43%	48%	50%
Administrators	96%	69%	52%	78%
Other Instructional Staff	63%	57%	48%	60%

Note: Other response options included Small Extent and Not At All.

Don't Know responses were excluded from analyses in the table. The percentages of staff indicating they did not know ranged from 11 to 23 percent of teachers, 0 to 6 percent of administrators, and 13 to 34 percent of other instructional staff. The highest percentage of staff indicating they did not know was at the high school level for all groups.

The relationship between survey results about PBIS's impact on student behavior and reducing discipline referrals and TFI subscale and overall Aggregate percentages were analyzed using correlations. Schools that had higher TFI scores also had higher percentages of staff who indicated PBIS practices improved student behavior and reduced discipline referrals to a large or moderate extent (see Table 70). Most correlations were moderate in strength.

**Table 70: Correlations Between Staff PBIS Effectiveness Survey Data and TFI Scores**

Group	Response	Survey Item	Subscale or Aggregate	Correlation Value	Description
Staff	Large or moderate	PBIS practices improve student behavior to a large or moderate extent.	Implementation	.481	Moderate
			Evaluation	.274	Weak
			Aggregate	.468	Moderate
Staff	Large or moderate	PBIS practices reduce discipline referrals to a large or moderate extent.	Implementation	.352	Moderate
			Evaluation	.275	Weak
			Aggregate	.370	Moderate

### Summary of School Goal Analyses Related to Academic Achievement, Student Behavior, and Teacher Retention

Table 71 provides a summary of the pattern of results for the school goal analyses related to academic achievement, discipline, and teacher retention. In addition, Table 72 provides a summary of the pattern of results for the school goal analyses related to discipline disproportionality. See Appendix D for detailed results by goal area and school level.

For student academic achievement, there was some evidence at each level that schools with a goal in this area had more positive student academic outcomes and perceptions that PBIS was effective in improving academic achievement compared to all schools, but this pattern was most consistent at the middle school level. For student discipline, there was some evidence at the elementary school level that schools with a goal in this area had more positive perceptions that PBIS was effective in this area compared to all schools, and at the high school level, schools with a goal in this area had more positive student discipline outcomes compared to all schools. As shown in Table 72, additional analyses for student discipline disproportionality showed some evidence at the elementary school and middle school levels that schools with a goal in this area had lower referral and suspension ratios for some student groups, but this pattern was most consistent for referral ratios at the middle school level. For teacher retention, there was evidence only at the middle school level that schools with a school safety and climate goal had a higher teacher retention rate compared to all middle schools. Overall, the results suggest a mixed pattern of results by school goal area and school level. Elementary schools with a school PBIS goal focused on academic achievement had more positive SOL results and more positive perceptions of PBIS impacting academics than all elementary schools. Middle schools with a school goal focused on these areas, with the exception of discipline in general, had more positive student outcomes overall and perceptions of PBIS impacting academics than all middle schools. High schools with a school goal focused on student discipline had more positive student discipline outcomes than all high schools.

**Table 71: Summary of Results for School Goal Analyses Related to Academics, Discipline, and Teacher Retention**

Measure: Schools with goal had more positive outcomes	Elem	Middle	High
<b>Academic Achievement</b>			
Percentage of students reading on grade level	✗	✓	✗
Percentage of students passing the English SOL	✓	✓	✓
Percentage of students passing the math SOL	✓	✓	✓
Perception PBIS practices improve academic achievement	✓	✓	✗
<b>Student Behavior</b>			
Percentage of students referred*	✗	✗	✓
Average referrals*	✗	✗	✓
Percentage of referred students suspended*	✗	✗	✓
Average suspensions*	✗	✗	✓
Perception PBIS practices improve student behavior	✓	✗	✗
Perception PBIS practices reduce discipline referrals	✗	✗	✗
<b>Teacher Retention</b>			
Percentage of teachers who remained in division	✗	✓	✗

Note: \*For student discipline measures, a check mark indicates that schools with a discipline goal had lower rates and lower average referrals and suspensions compared to the division. For all other measures, a check mark indicates that schools with a goal in that area had higher percentages than the division.

**Table 72: Summary of Results for School Goal Analyses Related to Discipline Disproportionality**

Measure: Schools with discipline disproportionality goal had lower ratios	Elem	Middle
<b>Referral Ratios</b>		
Black/White	✗	✓
Hispanic/White	✗	✓
Multiracial/White	✗	✓
Male/Female	✗	✗
Economically Disadvantaged/Not Economically Disadvantaged	✗	✓
Students With Disabilities/Not Students With Disabilities	✓	✗
English Learners/Not English Learners	✓	✓
<b>Suspension Ratios</b>		
Black/White	✓	✗
Hispanic/White	✗	✓
Multiracial/White	✓	✗
Male/Female	✓	✗
Economically Disadvantaged/Not Economically Disadvantaged	✗	✗
Students With Disabilities/Not Students With Disabilities	✗	✓
English Learners/Not English Learners	✗	✗

## Additional Cost

The final evaluation question focused on the cost to VBCPS for PBIS during 2021-2022. Cost data were collected from the departments of Teaching and Learning and Human Resources for the following areas: PBIS-specific resources or materials, technology, professional learning, staffing, and local travel. Table 73 summarizes the costs.

**Table 73: PBIS Costs for 2021-2022**

Category	2020-2021 Cost
Resources or Materials	\$3,754.19
Technology	\$2,598.45
Professional Learning	\$20,830.41
Staffing	\$464,076.04
Local Travel	\$557.85
<b>Total</b>	<b>\$491,816.94</b>
Grant Funds (i.e., resources/materials, technology, some professional learning)	\$27,740.90
<b>Total to VBCPS</b>	<b>\$464,076.04</b>

For the 2021-2022 school year, PBIS-specific resources or materials totaled \$3,754 and were covered by grant funds. Technology costs totaled \$2,598, which covered PBIS Rewards, a software system being piloted by one school in the division. The technology costs were also covered by grant funds. Professional learning costs totaled \$20,830, all of which were covered by grant funds. Local travel due to coaches traveling to schools totaled \$558 and were also covered by grant funds.

Nearly all of the cost for the initiative was related to staffing, which included salaries and benefits for four PBIS coaches and the PBIS specialist. Salaries for the PBIS specialist and PBIS coaches totaled \$332,235, and benefits totaled \$89,106 for fringe benefits and \$42,735 for health insurance. The staffing costs totaled approximately \$464,076.

Overall, the total cost of the initiative during 2021-2022 was approximately \$491,817. Taking into account the grant funding that covered expenses of \$27,741, the total cost to the school division was approximately \$464,076.

## Summary

PBIS offers a framework to support students academically, socially, emotionally, and behaviorally through universal practices for all students (Tier I), targeted practices for students in need of additional support (Tier II), and indicated practices for individual students who are not fully supported by Tier I or Tier II supports (Tier III). The purpose of this year-two evaluation during 2021-2022 was to assess the PBIS Tier I implementation and related outcomes.

Beginning in 2017-2018, the current VBCPS model of implementing PBIS began, which involved embedded PBIS school-level coaching. As of 2021-2022, schools in all cohorts had received training for and begun implementing PBIS Tier I practices. As the implementation of PBIS has progressed, VBCPS has used the District Capacity Assessment (DCA) to assess the extent to which conditions in the school division were optimal for building capacity to effectively implement PBIS. The 2021 overall score on the DCA was 98 percent, suggesting that nearly all conditions are in place within the division for building capacity to effectively implement PBIS. The division has used the Tiered Fidelity Inventory (TFI) to assess the extent to which schools are implementing PBIS with fidelity. Schools were categorized based on their overall Tier I TFI fidelity scores from 2021-2022, with 75 schools in the “High Fidelity” group (i.e., score of 80% or above), 9 schools in the “Adequate Fidelity” group (i.e., score of 70% to 79%), and no schools in the “Partial Fidelity” group (i.e., score of 69% or below).

When staff were asked a general survey item about their familiarity with PBIS, 97 percent of teachers, 99 percent of administrators, and 96 percent of other instructional staff indicated they were either very familiar or somewhat familiar with their school’s PBIS implementation. Overall, 97 percent of administrators who responded to the survey agreed their staff had a shared understanding of the PBIS framework.

At the Tier I level, supports are provided to all students and are the basis for a school’s PBIS framework. A foundational component of PBIS is having a PBIS Tier I leadership team at each school that establishes the systems and practices for Tier I support. When schools were assessed on the composition of their team and their team operating procedures on the TFI, there were relatively high average scores on related items at all school levels (scoring at least 1.63 out of 2).

Tier I PBIS implementation goals included schools having defined behavioral expectations and established procedures to implement PBIS consistently within schools and classrooms; effective professional learning; regular review and use of data to inform decision making; and student, family, community, and staff involvement. Regarding school behavioral expectations and procedures, at least 87 percent of teachers, administrators, and other instructional staff agreed that their school established positively framed expectations for behavior, at least 71 percent agreed that expectations for students and staff were implemented across classrooms, and at least 76 percent agreed that behavioral expectations were explicitly taught to students. Comparisons by school level showed that agreement percentages regarding these items were lowest at the high school level for each staff group, with the area of lowest agreement being teachers’ agreement that expectations are implemented across the classrooms (63%) and that behavioral expectations were explicitly taught to students (62%). Scores on related items on the TFI showed that schools had higher average scores on items related to establishing positive expectations and teaching the expectations than implementing PBIS consistently across classrooms. Comparisons by level showed that high schools had lower average scores on these TFI items than elementary schools and middle schools.

Regarding defining behaviors and procedures, at least 74 percent of teachers, administrators, and other instructional staff agreed that their school had determined behaviors that interfered with success and that their school had outlined procedures for staff to respond to student behavior. The general pattern was again lowest agreement percentages at the high school level for each group, although agreement was at least 71 percent at all levels. Scores on related items on the TFI showed that elementary schools had high average

scores on all items related to clearly defining behaviors for success and setting policies and procedures for student behavior that are used schoolwide. While secondary schools also had high scores on items related to clearly defining behaviors and setting policies and procedures for student behavior, secondary schools had notably lower scores on the item related to having a set of procedures for behavior feedback that is linked with schoolwide expectations and used across settings.

Regarding professional learning, at least 76 percent of teachers, administrators, and other instructional staff agreed that they received professional learning on various PBIS-related topics, including teaching schoolwide expectations for behavior, acknowledging appropriate behavior, correcting errors in behavior, and requesting assistance for behavior issues. Comparisons by school level showed that the lowest agreement percentages were at the high school level for all staff groups across each professional learning topic area, with the exception of requesting assistance for behavior issues for teachers, which was lowest at middle school. This pattern could be due to most high schools starting PBIS implementation during the COVID-19 pandemic, which impacted the extent to which professional learning was able to be carried out across the division. Regarding the data review and use goal, overall, 91 percent of PBIS Tier I team members who responded to the survey agreed that their team had access to student problem behavior data through a data system, and 83 percent agreed that their team reviewed schoolwide data at least monthly to inform decision making. However, the one TFI item that had a decrease in the average score in comparison to 2020-2021 was Discipline Data, which focuses on the Tier I team having access to graphed reports summarizing discipline data. This decrease may have been related to the discontinued use of the SWIS product due to lack of alignment with the adjusted statewide coding of discipline data in 2021-2022.

Data related to the stakeholder involvement goal showed that students and parents had awareness of PBIS practices at their school with 82 percent of students and 85 percent of parents agreeing that their school had a system to positively recognize student behavior. In addition, overall, at least 90 percent of teachers, administrators, and other instructional staff agreed that they supported their school's PBIS implementation.

When examining school TFI scores overall, elementary schools had the highest average scores compared to secondary schools. The items with the largest discrepancies by school level were the Classroom Procedures and Feedback and Acknowledgement items, which were the items with the lowest scores at the secondary levels. Overall, 67 percent of schools demonstrated an increase in their overall TFI fidelity score from 2020-2021 to 2021-2022. At the elementary school and high school levels, there were improvements in most TFI items, with notable improvements at the high school level. In contrast, at the middle school level, there were improvements for five items, decreases in seven, and no change for three. It is important to highlight that much improvement appears to have been made, especially at the elementary school and high school levels, despite the challenges that occurred due to the continued impact of the pandemic.

Outcome goals for the PBIS initiative included the following when PBIS is implemented with fidelity: students are engaged in school, students and teachers have positive perceptions of school safety and discipline procedures, students learn to regulate their emotions and demonstrate social-emotional competence, and students and teachers have positive perceptions of school climate. Due to all school sites scoring at least 70 percent or higher on the TFI, showing that all schools were implementing PBIS with the recommended level of implementation based on research literature, the focus of the results was to examine outcomes for each objective by school level. Additional correlation analyses were conducted to provide information about the relationship between survey data and individual school TFI scores. Data related to the goals and objectives showed that schools that had higher TFI scores also had higher percentages of students and teachers agreeing with several survey items related to student engagement, school safety and discipline procedures, social-emotional competency, and school climate. In addition, when surveyed about the impact of PBIS practices on improving these areas, from 48 to 58 percent of teachers, 81 to 90 percent of administrators, and 60 to 67 percent of other instructional staff indicated that PBIS practices improved aspects of these areas to a

large or moderate extent, with the exception of attendance, which had lower percentages for all staff groups. Additional analyses focused exclusively on schools that had identified goals in these areas. Overall, the results suggest that staff at schools with school goals focused on specific areas had more positive perceptions of PBIS impacting these goal areas, especially at the elementary and middle school levels.

The relationship between PBIS implementation and academic achievement, student behavior, and teacher retention was also examined. Overall, from 50 to 54 percent of teachers, 78 to 88 percent of administrators, and 60 to 63 percent of other staff indicated that PBIS practices improved academic achievement and student behavior and reduced discipline referrals. Additional analyses focused exclusively on schools that had identified their school goal to include improving academic achievement or student behavior. Overall, the results suggest a mixed pattern by goal area and school level. Elementary schools with a school PBIS goal focused on academic achievement had more positive SOL results and more positive perceptions of PBIS impacting academics than all elementary schools. Middle schools with a school goal focused on these areas, with the exception of discipline in general, had more positive student outcomes overall and perceptions of PBIS impacting academics than all middle schools. High schools with a school goal focused on student discipline had more positive student discipline outcomes than all high schools.

The final evaluation question focused on the additional cost to VBCPS for divisionwide PBIS during 2021-2022. Costs were related to the following areas: PBIS-specific resources or materials, technology, professional learning, staffing, and local travel. A portion of costs for professional learning were paid by grant funds. The total cost of the initiative to VBCPS during 2021-2022 was approximately \$464,076.



## Recommendations and Rationale

### **Recommendation #1: Continue PBIS with modifications noted in recommendations 2 and 3. (*Responsible Group: Department of Teaching and Learning*)**

**Rationale:** The first recommendation is to continue PBIS with modifications noted in the recommendations below. Based on School Board Policy 6-26, following an evaluation, a recommendation must be made to continue the initiative without modifications, continue the initiative with modifications, expand the initiative, or discontinue the initiative.

### **Recommendation #2: Investigate and implement strategies suggested in research literature for establishing procedures for behavior feedback and consistency of PBIS practices and procedures across classrooms at the secondary levels. (*Responsible Group: Department of Teaching and Learning*)**

**Rationale:** The second recommendation is to investigate and implement strategies suggested in research literature for establishing procedures for behavior feedback and consistency of practices and procedures across classrooms at the secondary levels. At the secondary levels, the TFI items with the lowest scores in 2021-2022 were Feedback and Acknowledgement (MS: 1.38; HS: 1.08) and Classroom Procedures (MS: 1.44; HS: 1.17). The Feedback and Acknowledgement TFI item is focused on having a set of procedures for behavior feedback that is linked with schoolwide expectations and used across settings and in classrooms, while Classroom Procedures is focused on Tier I features being implemented within classrooms and consistency with schoolwide systems. These two items also showed the largest discrepancies by school level. In comparison to 2020-2021, at the high school level, there was no change in the Feedback and Acknowledgement item average score (remaining at 1.08), while there was a notable decrease at the middle school level (from 1.69 to 1.38). When staff were surveyed about expectations for students and staff being implemented across classrooms, from 66 to 67 percent of middle school teachers and other instructional staff and from 59 to 63 percent of high school teachers and other instructional staff agreed. In addition, from 73 to 74 percent of middle school teachers and other instructional staff and from 62 to 63 percent of high school teachers and other instructional staff agreed that behavioral expectations were explicitly taught to students. From 67 to 69 percent of secondary teachers agreed that students knew the consequences for misbehaving and from 55 to 58 percent of secondary teachers agreed that the rules for student behavior were effective.

### **Recommendation #3: Continue to support school staff in their procedures related to reviewing schoolwide data to inform decision making through the use of Unified Insights. (*Responsible Group: Department of Teaching and Learning, Department of Technology*)**

**Rationale:** The third recommendation is to continue to support school staff in their procedures related to reviewing schoolwide data to inform decision making. Overall, the only TFI item with a decrease in the average score from 2020-2021 to 2021-2022 at the division level was for Discipline Data. In addition, the Discipline Data item had the lowest score at the elementary school level (1.61 out of 2). The TFI Discipline Data item is focused on the Tier I team having access to graphed reports summarizing discipline data. This decrease may have been related to the discontinued use of the SWIS product due to lack of alignment with the adjusted statewide coding of discipline data in 2021-2022. During the 2021-2022 school year, schools were encouraged to use their own methods for collecting and monitoring data for decision making. Additionally, during the 2021-2022 school year, a data analytics platform, Unified Insights, was purchased for the school division. Staff in the Department of Technology and Office of Student Support Services have been preparing for the platform to be used by school staff to guide decision making for PBIS. Therefore, it is recommended that Department of

Teaching and Learning staff continue to partner with Department of Technology staff in the launch of the Unified Insights data analytics platform to support school staff in their procedures related to reviewing PBIS-related data.

## Appendix A



### CLASS EXPECTATIONS & AGREEMENTS

Expectations are outcomes. Agreements provide clear meaning of what expectations look like in the classroom. A dependable system of expectations and agreements provides structure for students and helps them to be engaged with instructional tasks. It can create a sense of belonging and ownership. Plan for active teaching and reteaching of these expectations and agreements initially, and provide reinforcement consistently.

**Critical Foundation:** Classroom expectations should be a collaborative contract created and agreed upon by each member of the classroom. Ensure that your agreements benefit all students and not one group more than another. Consider and discuss differences between home, neighborhood and school expectations.

### PROCEDURES & ROUTINES

Procedures and routines are an established way of doing something in the classroom and school environment that becomes a sequence of actions regularly followed. Procedures and routines create predictability, safety and structure in the classroom and a productive learning environment which can create a sense of belonging. Consider what students need to know to move throughout their school day efficiently to develop routines. Use a variety of attention or transition signals. Involve students in the development of these procedures and routines.

*Examples to consider:*

- How do we participate in discussions?
- Where do we place our belongings?
- How do we transition within the classroom?

### OPPORTUNITIES TO RESPOND

Opportunities to respond are specific and instructionally deliberate invitations to individual students or groups of students to provide a verbal, written, or gestural response to a prompt. High rates of opportunities to respond during instruction increases the likelihood that students will be engaged in the given task and demonstrate appropriate and on-task behaviors. Responses can be individual, unison or mixed. **Critical Foundation:** Consider students' developmental level, cultural background, and learning styles as you increase opportunities for responding.

### BEHAVIOR SPECIFIC FEEDBACK: ACKNOWLEDGEMENT

Behavior specific acknowledgment is verbal/written feedback that is *descriptive, specific*, delivered *contingent* upon student/s demonstration of expected behavior, and it is delivered frequently (goal is a 4:1 ratio of acknowledgement to error correction). Behavior specific acknowledgement provides increased opportunities for building positive relationships with students and reinforcement of critical academic and social emotional skills. **Critical Foundation:** Connect acknowledgement to class agreements and values which are meaningful to the student/s. Recognize strengths and interests and provide brief and specific feedback. Establish relationships with students to determine and support the most effective feedback method.

### BEHAVIOR SPECIFIC FEEDBACK: ERROR CORRECTION

Error Correction is an informative statement to student by teacher following occurrence of undesired behavior. Effective responses to inappropriate behavior are *calm, consistent, brief, immediate and respectful*. Error correction identifies the undesired behavior and is used as an opportunity to teach replacement behavior. Error correction is a part of the continuum of responses to inappropriate behavior. The continuum can include redirection, reteaching, choice and private conferencing. **Critical Foundation:** Corrective feedback involves several key actions:

1. Validate students. Ask them to share their experiences and listen non-judgmentally.
2. State the positive intent of students' behaviors when teaching situational appropriateness, and hold high expectations for each student.
3. Provide specific instructions regarding why student behaviors are necessary in certain school settings.
4. Provide encouraging, skill-based, non-judgmental correction when needed.

### PHYSICAL ARRANGEMENT

The physical arrangement of the classroom is a preventative practice that positively impacts student performance in the classroom. Consider student voice when planning classroom arrangement, and ensure that all students in the class can see their lives, histories, cultures, and home languages incorporated into the classroom environment. This practice involves 3 key actions: **Define Traffic Patterns:** Traffic patterns are clearly defined and allow movement without disrupting others.

**Arrange Desks and Furniture:** Desks and furniture arrangements are built around the types of instructional activities and are arranged for maximum student and teacher visibility and access.

**Organize Materials:** Materials are clearly labeled, easily accessible, and organized for ease of use. When designing lessons, consider student groupings, location, and activity level.

### ACTIVE SUPERVISION

Active Supervision allows teachers to monitor student learning, identify students needing additional support, and promotes increased on-task student behavior during instructional activities. This practice involves 3 key actions:

**Move:** Your movement should be: constant, random, proximal, and target predictable problem areas in your room.

**Scan:** Scan the room looking for appropriate and inappropriate behaviors, making eye contact frequently.

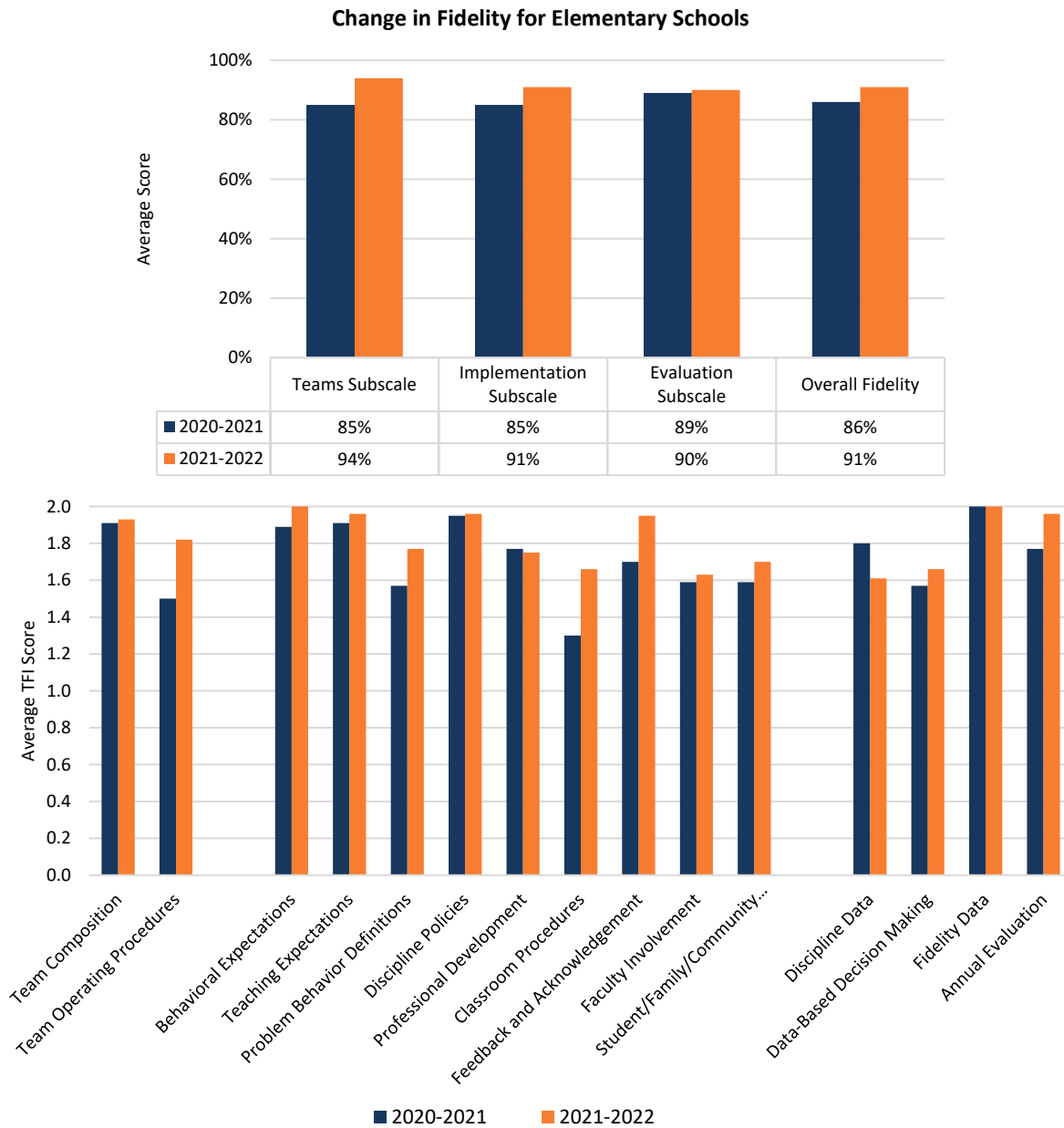
**Interact:** Provide frequent positive feedback and interactions to encourage, reinforce, and correct behaviors. Identify opportunities to pre-correct and provide additional instruction on appropriate behaviors.

### POSITIVE BEHAVIOR GAME (GROUP CONTINGENCIES)

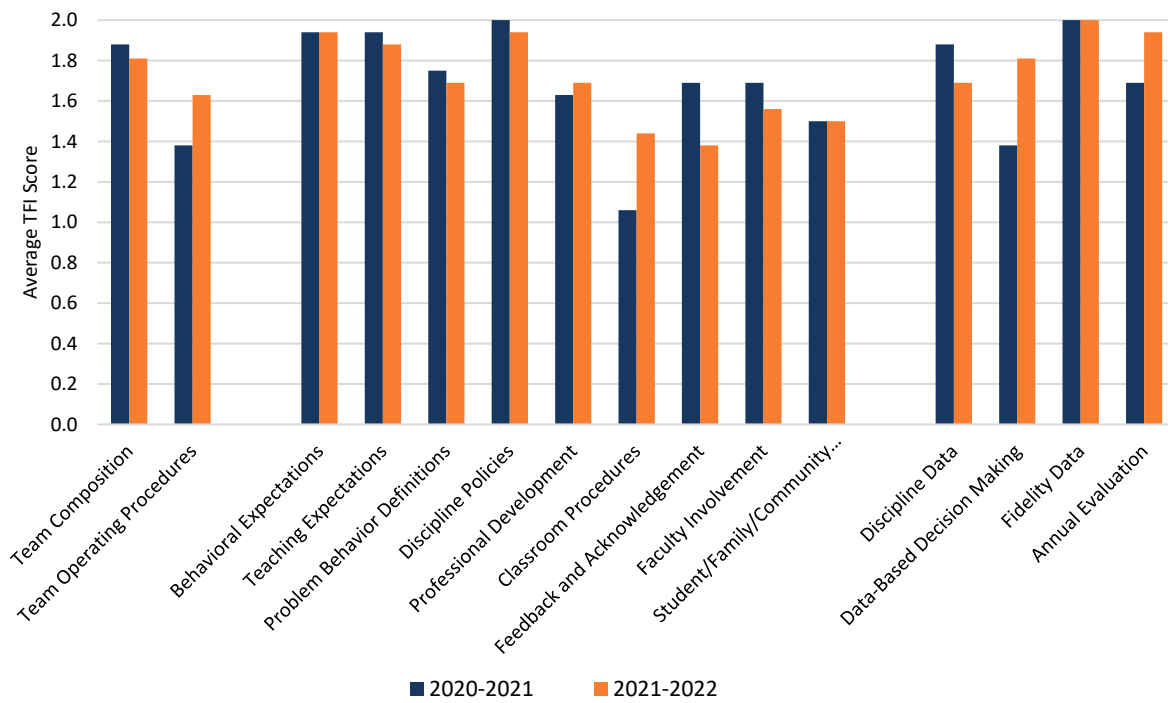
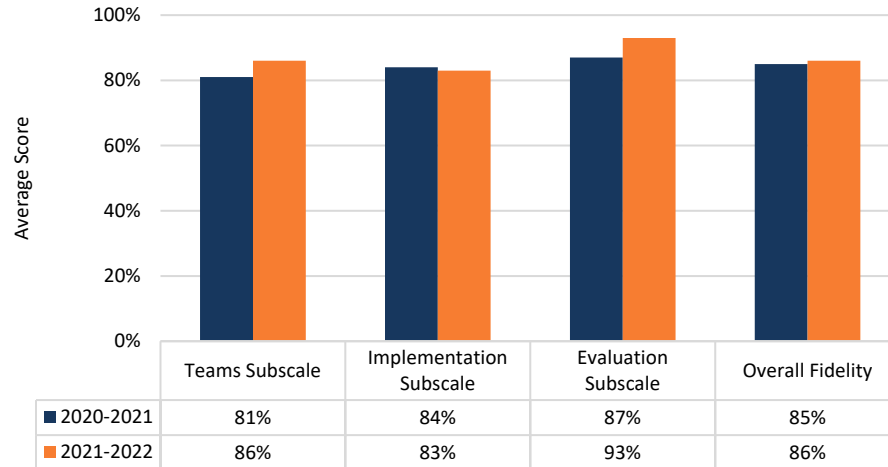
The Positive Behavior Game (PBG) is a quick (about 10 minutes) game lead by the teacher that reminds and reinforces students for using school-wide expectations, and routines in the classroom. The PBG encourages appropriate behaviors by specifically acknowledging students engaged in desired behaviors. This is an opportunity for a win-win situation for teachers and students which offers students the time for targeted practice and offers teachers the opportunity for increased reinforcement.

## Appendix B

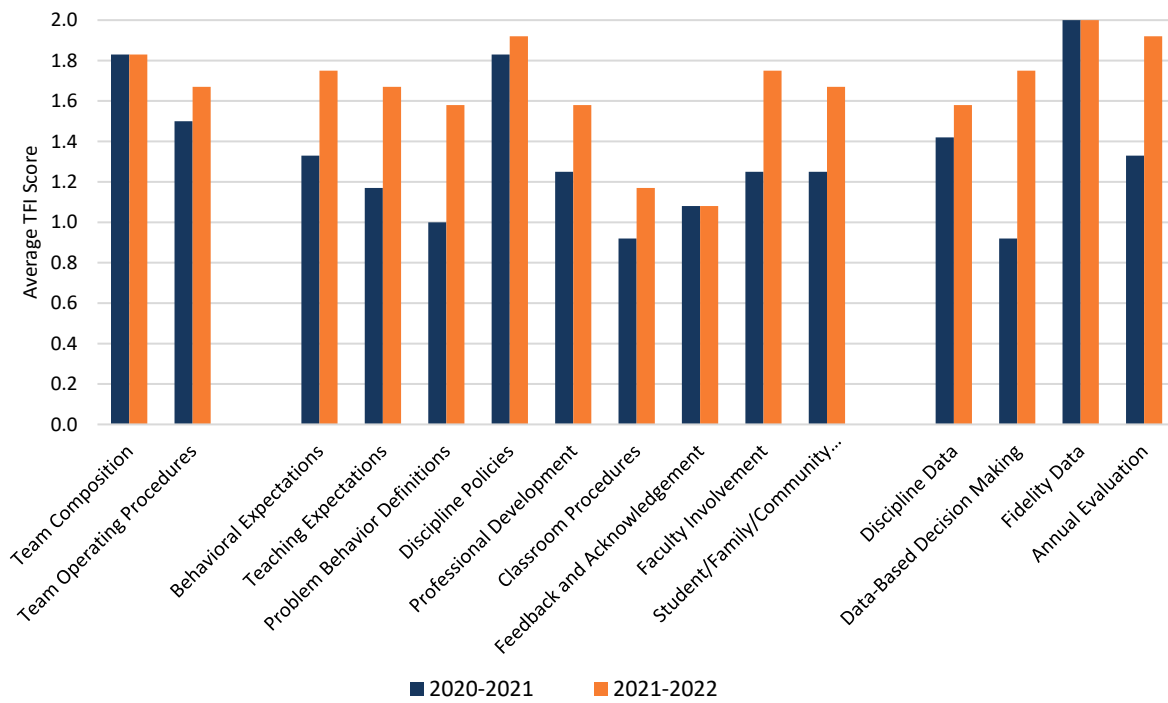
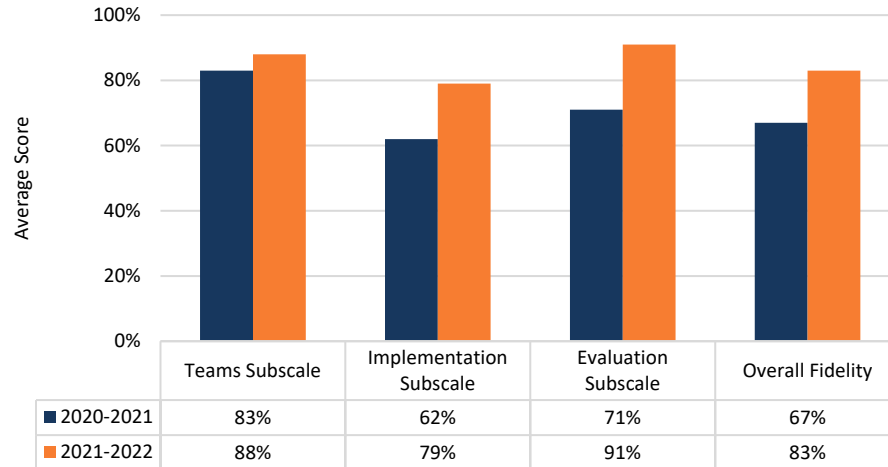
### Change in Fidelity From 2020-2021 to 2021-2022 By School Level



### Change in Fidelity for Middle Schools



### Change in Fidelity for High Schools





## Appendix C

### Detailed Results for School Goal Analyses Related to Division PBIS Goals

#### *Student Engagement/Attendance*

Schools that identified their goal as related to student engagement/attendance were evaluated on perceptions of PBIS improving student attendance and student engagement. Overall, a higher percentage of staff at schools with an identified goal related to student engagement/attendance indicated that PBIS practices improved student attendance to a large or moderate extent compared to all schools across the division. Comparisons by level showed notably higher percentages at the elementary school and middle school levels.

In addition, overall, a higher percentage of staff at schools with an identified goal related to student engagement/attendance indicated that PBIS practices improved student engagement at school to a large or moderate extent compared to all schools across the division. Comparisons by level showed a notable difference in perceptions at the elementary school level, with higher percentages of staff at schools with an identified goal related to student engagement/attendance indicating that PBIS practices improved student engagement. In contrast, while there was a notable difference between the schools with a goal in this area and the division at the high school level in percentages of staff who indicated PBIS practices improved student engagement at school, the pattern was reversed with higher percentages at the division level. Similar percentages were found at the middle school level.

#### **Staff Agreement Regarding PBIS Practices Improving Attendance and Engagement for Schools With Student Engagement Goal**

Survey Item	Schools with Student Engagement Goal				Division			
	Elem N=3	Middle N=1	High N=2	Total N=6	Elem N=56	Middle N=16	High N=12	Total N=84
PBIS practices improve student attendance to a large or moderate extent.	58%	47%	38%	49%	52%	40%	39%	45%
PBIS practices improve student engagement at school to a large or moderate extent.	77%	48%	35%	59%	68%	49%	41%	56%

#### *School Safety and Climate*

Schools that identified their goal as improvement of perceptions of safety and/or school environment were evaluated on perceptions of PBIS improving school safety and discipline procedures as well as perceptions of school climate. Overall, a similar percentage of staff at schools with an identified goal related to school safety and climate indicated that PBIS practices improved school safety and the consistency of discipline procedures to a large or moderate extent compared to all schools across the division. Comparisons by level showed that at the middle school level, a higher percentage of staff at middle schools with an identified goal related to school safety and climate indicated that PBIS practices improved school safety to a large or moderate extent compared to all middle schools across the division. Similar percentages were found at the elementary school and high school levels.

A similar pattern was found overall and by school level for the other survey items related to school safety and climate, including PBIS practices improving the consistency of discipline procedures, school climate, and student and teacher relationships. For all items, relatively similar percentages of staff at schools with an identified goal related to school safety and climate indicated that PBIS practices improved these areas to a large or moderate extent compared to all schools across the division. At the elementary school and middle



school levels, higher percentages of staff at middle schools with an identified goal related to school safety and climate indicated that PBIS practices improved these areas to a large or moderate extent compared to all middle schools across the division, although the differences were notably larger at the middle school level (from 7 to 11 percentage points difference). Similar percentages were found at the high school level.

**Staff Agreement Regarding PBIS Practices Improving Safety and Climate for Schools With Safety and Climate Goal**

Survey Item	Schools with School Safety and Climate Goal				Division			
	Elem N=23	Middle N=5	High N=10	Total N=38	Elem N=56	Middle N=16	High N=12	Total N=84
PBIS practices improve school safety to a large or moderate extent.	70%	61%	49%	60%	71%	53%	51%	61%
PBIS practices improve consistency of discipline procedures to a large or moderate extent.	66%	56%	46%	56%	64%	49%	46%	55%
PBIS practices improve school climate to a large or moderate extent.	68%	59%	44%	56%	67%	50%	45%	57%
PBIS practices improve student and teacher relationships to a large or moderate extent.	73%	69%	49%	62%	72%	58%	50%	62%

***Social-Emotional Competence***

Schools that identified their goal as student social-emotional competence were evaluated on perceptions of PBIS improving students' emotion regulation and social-emotional competence. Overall, a slightly higher percentage of staff at schools with an identified goal related to social-emotional competence indicated that PBIS practices improved emotion regulation to a large or moderate extent compared to all schools across the division. Comparisons by level showed slightly higher percentages of staff indicating PBIS practices improved emotion regulation for schools with this as their goal at all levels, although the difference was slight at the high school level (44% vs. 42%).

Overall, a higher percentage of staff at schools with an identified goal related to social-emotional competence indicated that PBIS practices improved social-emotional competence to a large or moderate extent compared to all schools across the division. Comparisons by level showed higher percentages of staff indicating PBIS practices improved social-emotional competence for schools with this as their goal at the middle school and high school levels. There was no difference across schools at the elementary school level.

**Staff Agreement Regarding PBIS Practices Improving Social-Emotional Competence for Schools With Social-Emotional Goal**

Survey Item	Schools with Social-Emotional Goal				Division			
	Elem N=14	Middle N=4	High N=4	Total N=22	Elem N=56	Middle N=16	High N=12	Total N=84
PBIS practices improve emotion regulation to a large or moderate extent.	66%	51%	44%	56%	63%	46%	42%	53%
PBIS practices improve social-emotional competence to a large or moderate extent.	66%	57%	48%	59%	66%	48%	43%	55%

## Appendix D

### Detailed Results for School Goal Analyses Related to Academic Achievement, Student Behavior, and Teacher Retention

#### Student Academic Performance

In comparison to all schools throughout the division, students at schools with a specific academic goal for PBIS in 2021-2022 had a slightly higher percentage of students who were reading on grade level as measured by the RI. Comparisons by school level showed a higher percentage of students at schools with an academic-specific goal reading on grade level at the middle school level, while there was a slightly lower percentage at the elementary school level and an equivalent percentage at the high school level.

**Percentage of Students Reading on Grade Level for Schools With Academic Goal**

Schools With Academic Goal				Division			
Elem N=2	Middle N=2	High N=2	Total N=6	Elem N=56	Middle N=16	High N=12	Total N=84
66%	76%	80%	76%	68%	72%	80%	71%

Performance on the English and math SOLs were based on the percentage of students who met proficiency. Overall, a higher percentage of students at schools with an academic-specific goal passed the English and math SOLs compared to all schools throughout the division. Comparisons by school level showed higher percentages of students passing the English and math SOLs at schools with an academic-specific goal at all school levels.

**Percentages of Students Passing the English and Math SOL for Schools With Academic Goal**

SOL Test	Schools With Academic Goal				Division			
	Elem N=2	Middle N=2	High N=2	Total N=6	Elem N=56	Middle N=16	High N=12	Total N=84
English	82%	85%	94%	87%	80%	82%	91%	82%
Math	81%	80%	87%	82%	76%	74%	85%	77%

#### Staff Perceptions of PBIS Effectiveness on Academic Achievement

Overall, a higher percentage of staff at schools with an identified goal related to academic achievement indicated that PBIS practices improved academic achievement to a large or moderate extent compared to all schools across the division. Comparisons by level showed higher percentages of staff indicating PBIS practices improved academic achievement for schools with this as their goal at the elementary school and middle school levels, whereas there was a lower percentage at the high school level.

**Percentages of Staff Indicating PBIS Practices Improve Student Academic Achievement for Schools With Academic Goal**

Survey Item	Schools With Academic Goal				Division			
	Elem N=2	Middle N=2	High N=2	Total N=6	Elem N=56	Middle N=16	High N=12	Total N=84
PBIS practices improve academic achievement to a large or moderate extent.	81%	61%	38%	59%	65%	46%	46%	54%

#### Disciplinary Referrals and Discipline Outcome Decisions

Overall, discipline and suspension data were similar for schools that had an identified discipline goal compared to all schools throughout the division. Comparisons by school level showed different patterns of results by

school level. At the elementary school level, schools with an identified goal related to student discipline had relatively similar discipline and suspension data (e.g., 8% vs. 7% of students referred), with the exception of a slightly higher percentage of referred students who were suspended in comparison to the division. At the middle school level, there was a higher discipline referral rate and higher referral and suspension averages compared to the division. At the high school level, there was a lower suspension rate and lower referral and suspension averages compared to the division.

**Discipline and Suspension Data for Schools With Discipline Goal**

Measure	Schools With Discipline Goal				Division			
	Elem N=32	Middle N=5	High N=3	Total N=40	Elem N=56	Middle N=16	High N=12	Total N=84
Percentage of students referred	8%	27%	18%	13%	7%	25%	19%	15%
Average referrals	2.3	3.1	2.2	2.6	2.3	2.8	2.5	2.6
Percentage of referred students suspended	57%	68%	53%	60%	55%	67%	56%	60%
Average suspensions	2.0	2.6	1.6	2.1	2.0	2.3	2.0	2.1

### *Discipline Disproportionality*

Additional analyses were conducted for the schools that identified a school goal related to discipline disproportionality. Discipline referral ratios were calculated based on dividing the referral rate for one group by the referral rate for another group, and suspension ratios were calculated based on dividing the suspension rate of referred students in one group by the suspension rate of referred students in another group. Student group comparisons included Black students, Hispanic students, and Multiracial students relative to White students; male students relative to female students; economically disadvantaged students relative to non-economically disadvantaged students; students with disabilities relative to students without disabilities; and English Learner students relative to non-English learner students.

Regarding discipline referral ratios, at the elementary school level, schools with an identified goal focused on discipline disproportionality had higher referral ratios, meaning that there was more disparity, in comparison to all schools throughout the division, with the exception of referral ratios for students with disabilities and English learner students. This suggests that the schools who identified discipline disproportionality as a goal were those that perceived there were challenges in that area relative to other schools. With the exception of the referral ratios by gender and for students with disabilities, at the middle school level, the school with an identified goal focused on discipline disproportionality had lower referral ratios, meaning there was less disparity, in comparison to all schools throughout the division.

**Referral Ratios for Selected Student Groups for Schools with Discipline Disproportionality Goal**

Student Group Comparison	Schools with Discipline Disproportionality Goal		Division	
	Elem N=4	Middle N=1	Elem N=56	Middle N=16
Black/White	3.00	1.71	2.23	2.17
Hispanic/White	1.39	0.67	1.17	1.27
Multiracial/White	1.94	1.05	1.28	1.33
Male/Female	3.39	2.34	2.73	1.71
Economically Disadvantaged/Not Economically Disadvantaged	2.47	1.81	2.21	2.09
Students With Disabilities/Not Students With Disabilities	1.41	1.60	1.63	1.46
English Learners/Not English Learners	0.30	0.38	0.78	0.64

Regarding suspension ratios, at the elementary school level, schools with an identified goal focused on discipline disproportionality had higher suspension ratios, meaning that there was more disparity in being suspended following referral, for Hispanic students, economically disadvantaged students, students with disabilities, and English learners, whereas there were lower suspension ratios for Black students, Multiracial students, and male students. At the middle school level, the school with an identified goal focused on discipline disproportionality had higher suspension ratios with the exception of Hispanic students and students with disabilities.

**Suspension Ratios for Selected Student Groups for Schools with Discipline Disproportionality Goal**

Student Group Comparison	Schools with Discipline Disproportionality Goal		Division	
	Elem N=4	Middle N=1	Elem N=56	Middle N=16
Black/White	1.08	1.30	1.29	1.24
Hispanic/White	1.19	0.91	1.00	1.12
Multiracial/White	0.85	1.24	1.08	1.09
Male/Female	1.04	1.31	1.12	1.08
Economically Disadvantaged/Not Economically Disadvantaged	1.22	1.40	1.18	1.20
Students With Disabilities/Not Students With Disabilities	1.43	1.06	1.24	1.09
English Learners/Not English Learners	0.95	1.41	0.90	0.98

### ***Perceptions of PBIS Effectiveness on Student Behavior and Discipline Referrals***

Overall, a slightly higher percentage of staff at schools with an identified goal related to student discipline indicated that PBIS practices improved student behavior to a large or moderate extent compared to all schools across the division. In contrast, comparisons by level showed notably lower percentages of staff at secondary schools with an identified goal related to student discipline indicated that PBIS practices improved student behavior compared to all secondary schools across the division. These results suggest that the schools who identified student discipline as a goal were those that perceived there were challenges in that area relative to other schools. There were similar percentages of staff indicating PBIS improved student behavior at the elementary school level. A similar pattern of results was found regarding perceptions of PBIS practices reducing discipline referrals.

**Percentages of Staff Indicating PBIS Practices Improve Behavior for Schools with Discipline Goal**

Survey Item	Schools With Discipline Goal				Division			
	Elem N=32	Middle N=5	High N=3	Total N=40	Elem N=56	Middle N=16	High N=12	Total N=84
PBIS practices improve student behavior to a large or moderate extent.	69%	45%	37%	60%	68%	52%	48%	58%
PBIS practices reduce discipline referrals to a large or moderate extent.	63%	40%	35%	54%	63%	47%	48%	55%

### Teacher Retention

Schools were not asked to indicate whether teacher retention was a goal area. However, schools with a goal related to the school climate were assessed on teacher retention.<sup>63</sup> The percentage of teachers who remained in the school division during the school year was used to examine teacher retention. Overall, there was a similar percentage of teachers who remained in the school division for schools that had a goal related to school climate compared to all schools throughout the division. Comparisons by school level showed a slightly higher percentage of teachers at the middle school level remained during the school year at schools with a school goal focused on school climate compared to all schools at the middle school level.

**Percentage of Teachers Who Remained in School Division in 2021-2022**

Schools with Safety and Climate Goal				Division			
Elem N=23	Middle N=5	High N=10	Total N=38	Elem N=56	Middle N=16	High N=12	Total N=84
87%	89%	88%	88%	88%	87%	88%	88%

## Endnotes

<sup>1</sup> Source: <https://www.pbis.org/pbis/tiered-framework>

<sup>2</sup> Source: <https://www.pbis.org/pbis/tiered-framework>

<sup>3</sup> Source: [www.pbis.org](http://www.pbis.org)

<sup>4</sup> Notes: For Cohort 2, Renaissance Academy middle school and Renaissance Academy high school are considered as two separate sites because they each received their own TFI scores. Green Run High School and Green Run Collegiate are considered one site because the campus as a whole received one TFI score. For Cohort 5, Old Donation School is considered as two separate sites at the elementary school and middle school levels because they each received their own TFI scores. For later analyses by cohort, cohort 1 and 2 are combined due to their initial implementation models preceding the VBCPS coaching model.

<sup>5</sup> Source: <https://www.pbis.org/pbis/tier-1>

<sup>6</sup> Source: <https://www.pbis.org/pbis/tier-2>

<sup>7</sup> Source: <https://www.pbis.org/pbis/tier-3>

<sup>8</sup> Source: <https://www.pbis.org/pbis/tier-3>

<sup>9</sup> Source: <https://www.pbis.org/resource/pbis-a-brief-introduction-and-faq>

<sup>10</sup> Published division and high school data may differ from data presented in the current report due to data from students from the Advanced Technology Center (ATC) and Technical and Career Education Center (TCE) not being included due to ATC and TCE not being assessed on PBIS implementation fidelity.

<sup>11</sup> Staff from the ATC and TCE were not included in percentages due to ATC and TCE not being assessed on PBIS implementation fidelity.

<sup>12</sup> Students from the Advanced Technology Center (ATC) and Technical and Career Education Center (TCE) were not included due to ATC and TCE not being assessed on PBIS implementation fidelity.

<sup>13</sup> Source: Algozzine, B., Barrett, S., Eber, L., George, H., Horner, R., Lewis, T., Putnam, B., Swain-Bradway, J., McIntosh, K., & Sugai, G. (2014). School-wide PBIS tiered fidelity inventory. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>14</sup> Source: McIntosh, K., Massar, M. M., Algozzine, R. F., George, H. P., Horner, R. H., Lewis, T. J., & Swain-Bradway, J. (2017). Technical adequacy of the SWPBIS tiered fidelity inventory. *Journal of Positive Behavior Interventions*, 19, 3-13.

<sup>15</sup> Source: Algozzine, B., et al. (2014). School-wide PBIS tiered fidelity inventory. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>16</sup> Source: Mercer, S. H., McIntosh, K., & Hoselton, R. (2017) as cited in Kittelman, A., Eliason, B. M., Dickey, C. R., & McIntosh, K. (2018). How are schools using the SWPBIS tiered fidelity inventory (TFI)? OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>17</sup> The Cluster Analysis used to determine the comparable school groups was based on a combination of data elements. The following student data elements at the school level were included in the analysis: gender, ethnicity, socioeconomic status, limited English proficiency, student stability, special education status, and gifted status.

<sup>18</sup> Notes: For Cohort 2, Renaissance Academy middle school and Renaissance Academy high school are considered as two separate sites because they each received their own TFI scores. Green Run High School and Green Run Collegiate are considered one site because the campus as a whole received one TFI score. For Cohort 5, Old Donation School is considered as two separate sites at the elementary school and middle school levels because they each received their own TFI scores. For later analyses by cohort, cohorts 1 and 2 were combined due to their initial implementation models preceding the VBCPS coaching model.

<sup>19</sup> Source: K. DiMaggio, personal communication, November 3, 2021.

<sup>20</sup> Source: K. DiMaggio and D. Brown. An Update of the Work Implementing and Sustaining Positive Behavioral Intervention and Supports (PBIS). VBCPS School Board Planning, Performance, and Monitoring Committee. October 5, 2021.

<sup>21</sup> Source: K. DiMaggio, personal communication, November 9, 2022.

<sup>22</sup> Source: <https://www.pbis.org/pbis/tier-1>

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- <sup>23</sup> Source: Guidance: Forming Your PBIS Leadership Team. Available on PBIS VBCPS Sharepoint website under Tier 1 Critical Elements 1.1 and 1.2 Teaming.
- <sup>24</sup> Source: <https://www.pbis.org/topics/school-wide>
- <sup>25</sup> Source: Blank School-wide Matrix Template. Available on PBIS SharePoint under Tier 1 Critical Elements 1.3 Behavior Expectations.
- <sup>26</sup> Source: VBCPS Bus Expectations. Available on PBIS SharePoint under Tier 1 Critical Elements 1.3 Behavior Expectations Folder.
- <sup>27</sup> Source: Example files. Available on PBIS SharePoint under Tier 1 Critical Elements 1.4 Teaching Expectations.
- <sup>28</sup> Source: Teaching and Acknowledgement Systems Powerpoint. Provided by Dayla Brown. Available on PBIS SharePoint under Tier 1 Critical Elements 1.9 Acknowledgement.
- <sup>29</sup> Source: Sample Class vs. Office. Available on PBIS SharePoint under Tier 1 Critical Elements 1.5 and 1.6 Class vs. Office – Flowchart.
- <sup>30</sup> Source: Sample Behavior Flow Chart. Available on PBIS SharePoint under Tier 1 Critical Elements 1.5 and 1.6 Class vs. Office – Flowchart.
- <sup>31</sup> Source: PBIS Classroom Practices. Available on VBCPS PBIS Resources Google Site. <https://sites.google.com/vbschools.com/pbis-resources/tier-1-classroom-practices>
- <sup>32</sup> Source: PBIS Classroom Practices. Available on VBCPS PBIS Resources Google Site. <https://sites.google.com/vbschools.com/pbis-resources/tier-1-classroom-practices>
- <sup>33</sup> Source: K. DiMaggio and D. Brown. An Update of the Work Implementing and Sustaining Positive Behavioral Intervention and Supports (PBIS). VBCPS School Board Planning, Performance, and Monitoring Committee. October 5, 2021.
- <sup>34</sup> PBIS Classroom Practices. Available on VBCPS PBIS Fundamentals: A Learning Series Google Site. <https://sites.google.com/vbschools.com/pbis-essential-learning-series/tier-1/overview-of-the-classroom-practices>
- <sup>35</sup> How to Use the Classroom Observation Data Collection Form. Available on VBCPS PBIS Fundamentals: A Learning Series Google Site. <https://sites.google.com/vbschools.com/pbis-essential-learning-series/tier-1/fidelity-evaluation-of-pbis>
- <sup>36</sup> Source: K. DiMaggio and D. Brown, personal communication, October 6, 2020.
- <sup>37</sup> <https://sites.google.com/vbschools.com/pbis-essential-learning-series>
- <sup>38</sup> Source: <https://www.smores.com/pqf6y>
- <sup>39</sup> Source: <https://www.pbis.org/pbis/tiered-framework>
- <sup>40</sup> Source: <https://www.pbis.org/pbis/tier-1>
- <sup>41</sup> Source: Problem-solving Worksheet. Available on PBIS SharePoint under Tier 1 Critical Elements 1.12 and 1.13 Data.
- <sup>42</sup> Source: K. DiMaggio, personal communication, November 9, 2022; <https://www.pbisrewards.com/>
- <sup>43</sup> Source: K. DiMaggio, personal communication, November 9, 2022.
- <sup>44</sup> Source: <https://www.pbis.org/resource/how-school-teams-use-data-to-make-effective-decisions-team-initiated-problem-solving-tips>
- <sup>45</sup> Source: <https://www.pbis.org/pbis/tier-1>
- <sup>46</sup> Source: <https://www.pbis.org/pbis/tier-1>
- <sup>47</sup> Source: PBIS One Pager. Available on PBIS SharePoint under Tier 1 Critical Elements 1.11 Stakeholder Involvement.
- <sup>48</sup> Source: K. DiMaggio and D. Brown. An Update of the Work Implementing and Sustaining Positive Behavioral Intervention and Supports (PBIS). VBCPS School Board Planning, Performance, and Monitoring Committee. October 5, 2021.
- <sup>49</sup> Source: K. DiMaggio and D. Brown. An Update of the Work Implementing and Sustaining Positive Behavioral Intervention and Supports (PBIS). VBCPS School Board Planning, Performance, and Monitoring Committee. October 5, 2021.
- <sup>50</sup> Source: K. DiMaggio, personal communication, November 9, 2022.
- <sup>51</sup> Source: Mercer, S. H., McIntosh, K., & Hoselton, R. (2017) as cited in Kittelman, A., Eliason, B. M., Dickey, C. R., & McIntosh, K. (2018). How are schools using the SWPBIS tiered fidelity inventory (TFI)? OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)
- <sup>52</sup> Source: K. DiMaggio, personal communication, November 9, 2022.
- <sup>53</sup> Source: Responding to Student Needs: School Guide to the Student Response Team Process (2017 Update).



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<sup>54</sup> Source: Social Emotional Learning in VBCPS. SEL Framework. Available on SEL in VBCPS. SEL Stockpile Google Site. <https://sites.google.com/vbschools.com/selstockpile/home?scrlybrkr=f16d9c91>

<sup>55</sup> Source: Barrett, S., Eber, L., McIntosh, K., Perales, K., & Romer, N. (2018). Teaching Social-Emotional Competencies within a PBIS Framework. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>56</sup> Source: [PBIS Resources - Student Well-Being and Social Emotional Learning \(google.com\)](#)

<sup>57</sup> Source: Culturally Responsive Practices VBCPS Infographic. Available at <https://drive.google.com/file/d/1FPJhFNL6Z0NT-UO1xhqWn-hcrAgYU-Rc/view>

<sup>58</sup> Source: Levenson, M., Smith, K., McIntosh, K., Rose, J., & Pinkelman, S. (2016). PBIS Cultural Responsiveness Field Guide: Resources for trainers and coaches. OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>59</sup> Source: Culturally Responsive PBIS. Fall 2020 PBIS webinars. Available on VBCPS PBIS Fundamentals: A Learning Series Google Site. <https://sites.google.com/vbschools.com/pbis-essential-learning-series/additional-resources/cultural-responsiveness-within-the-pbis-framework>

<sup>60</sup> Source: Mercer, S. H., McIntosh, K., & Hoselton, R. (2017) as cited in Kittelman, A., Eliason, B. M., Dickey, C. R., & McIntosh, K. (2018). How are schools using the SWPBIS tiered fidelity inventory (TFI)? OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. [www.pbis.org](http://www.pbis.org)

<sup>61</sup> Strength of correlation coefficients was defined as follows: .1 to .3 as weak; between .3 and .7 as moderate; .7 to 1.0 as strong. According to SAGE Research Methods Datasets. (2015). Learn about Pearson's Correlation Coefficient in SPSS with Data from the Consolidated Stat Performance Report (2012-2013). Retrieved from <https://methods.sagepub.com/dataset/pearson-in-edfacts-cspr-2013>

<sup>62</sup> The Cluster Analysis used to determine the comparable school groups was based on a combination of data elements. The following student data elements at the school level were included in the analysis: gender, ethnicity, socioeconomic status, limited English proficiency, student stability, special education status, and gifted status.

<sup>63</sup> Source: Dahlkamp, S., Peters, M. L., & Schumaker, G. (2017). Principal self-efficacy, school climate, and teacher retention: A multi-level analysis. *Alberta Journal of Educational Research*, 63.4, 357-376.

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December 2022