West Virginia Safe and Supportive (S3) Schools Project

Year 2 Implementation Evaluation Report

West Virginia Department of EDUCATION
Office of Research

West Virginia Safe and Supportive Schools Project

Year 2 Implementation Evaluation Report

Andy Whisman

West Virginia Department of EDUCATION
Office of Research

West Virginia Department of Education
Division of Teaching and Learning
Office of Research
Building 6-Room 722 State Capitol Complex
1900 Kanawha Boulevard East
Charleston, WV 25305
http://wvde.state.wv.us/

June 2013

James B. Phares
State Superintendent of Schools
West Virginia Department of Education

Robert Hull
Associate Superintendent
West Virginia Department of Education

Juan D'Brot
Executive Director
Office of Assessment and Accountability

Keywords
School climate, safe and supportive schools, S3, implementation fidelity, West Virginia

Suggested Citation
Whisman, A. (2013). *West Virginia Safe and Supportive Schools project: Year 2 implementation evaluation report*. Charleston: West Virginia Department of Education, Division of Teaching and Learning, Office of Research.

Content Contact
Andy Whisman, Ph.D.
Coordinator, Research and Evaluation
Office of Research
swhisman@access.k12.wv.us

This research study was reviewed and approved by the West Virginia Department of Education Institutional Review Board (IRB-WVDE-009). Should you desire additional details about this study's approval status, you may contact the WVDE IRB chairperson, Nathaniel Hixson (nhixson@access.k12.wv.us).

Executive Summary

The 4-year federal Safe and Supportive Schools (S3) program supports targeted interventions to improve and measure conditions for learning at the high school programmatic level. In the S3 program, "conditions for learning" refers to *school climate*, defined as "the quality and character of school life" reflecting "norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" within the school community.[1]

The National Implementation Research Network (NIRN) defines *implementation* as "a specified set of activities designed to put into practice an activity or program of known dimensions."[2] NIRN also describes implementation as a developmental process that occurs in discernible stages: *exploration*, *installation*, *initial implementation*, and *full implementation*. In addition to progressing through these stages, well implemented interventions tend to share common drivers, which fall into three categories: *competency*, *organization*, and *leadership*.[3]

Building on this conceptual basis, the WV Model for Positive School Climate (WVMPSC) serves as the framework for West Virginia's S3 project activities. The model provides a systematic, data-driven planning process that enables schools to identify and implement effective interventions to improve conditions for learning and ultimately to improve student outcomes. It involves strategic steps in these broad areas: (a) organizing, (b) assessment, (c) building support, (d) planning and implementation, and (e) monitoring and evaluation. For each strategic step, a set of core activities help schools carry out their school climate improvement process. Appendix A displays how the developmental stages, implementation drivers, and strategic steps function together (page 29). The WVDE Office of Healthy Schools enlisted and trained a cadre of school climate specialists (SCSs) to guide teams and leaders from schools selected for the program (S3 schools) through the components of the WVMPSC. Each SCS serves from one to eight S3 schools.

The S3 project has an evaluation component spanning the full 4 years of the project. For this report, the WVDE Office of Research focused the first two years of the project—the 2010-11 and 2011-12 school years—to assess two evaluation questions: (EQ1) To what extent do participating schools implement the program with fidelity relative to the WVMPSC, and (EQ2) To what extent do program initiatives improve school climate and culture?

Methods

To assess implementation fidelity, we developed 4-point rubrics for each core activity with rating scales that ranged from *missing* to *strong fidelity*, but also included additional response options of *too early to tell* and *don't know*. The implementation fidelity assessments are completed toward the end of each academic year by two groups: the cadre of SCSs and school-based leadership

[1] National School Climate Center (n.d.). School climate. New York: Author. Retrieved from www.schoolclimate.org/climate/

[2] National Implementation Research Network (n.d.a). *Learn implementation* (online publication). Chapel Hill: University of North Carolina, FPG Child Development Institute. Retrieved from http://nirn.fpg.unc.edu/learn-implementation/implementation-defined.

[3] Fixsen, D. L., & Blase, K. A. (2008). *Drivers framework*. Chapel Hill, NC: The National Implementation Research Network, Frank Porter graham Child Development Institute, University of North Carolina.. Retrieved from http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers

teams in each S3 intervention school (S3 teams). SCSs submitted one assessment response for each school they served; members of the S3 teams collaborated to complete one consensus rubric for their schools.

To assess school climate improvement, two approaches were taken. First, we compared overall school climate index scores for S3 intervention schools between the 2010-11 and the 2011-12 school years to assess change over time. Second, we added a question in the spring 2012 administration of the WV School Climate Surveys for students and staff. In the question, a series of items corresponding to 20 indicators from the school climate index were listed, and respondents were asked to indicate whether the items have changed compared to the previous year.

Ancillary analyses looked at how much support was provided by school districts and school principals, and how well schools crafted their behavioral norms and expectations, a key component of the WVMPSC.

Results

Fidelity of implementation

Overall the 15 (of 22) intervention schools for which fidelity assessment data were available in both 2011 and 2012 appeared to have done well in implementing core activities that align with the *exploration* and *installation* stages of implementation. Moreover, *competency* and *organization* implementation drivers tended to be largely in play during the first 2 years of the project as school-based teams were established, SCSs provided training and developed coaching relationships with school teams, and data systems to support decisions were employed through core activities (i.e., environmental scans and SWOT analyses). The use of other relevant data sources (e.g., school climate survey data) was initiated and sustained over the 2 years to support school improvement decisions and planning. Across most core activities—aligned with all stages of implementation—improvements were made, moving from being altogether missing or implemented with weak fidelity in 2011, to being implemented at weak to moderate fidelity in 2012.

Both school-based S3 teams and SCSs indicated marked improvements relative to the strategic steps of the WVMPSC over the 2 years. SCSs tended to be more guarded in their assessments, however. For some core activities they indicated schools' implementation fidelity to be at lower levels than the school S3 teams rated themselves; this was likely due to the broader frame of reference SCSs have across schools. Statistically significant differences were found on seven WVMPSC core activities in 2012, compared to only three in 2011. The two groups differed—with S3 teams providing higher ratings—on two core activities in both years: (a) informing parents and community partners about the S3 initiative and securing their commitment, and (b) building understanding of S3 behavioral norms among school staff. The first of these is a challenge throughout the entire school system, whether involved in S3 or not. The latter is of critical concern because successful school climate improvement relies heavily on the awareness and understanding of expectations for appropriate behaviors, and execution of practices that reinforce those expectations in the day-to-day operations of the school.

A related activity on which the two groups differed in 2012 was defining school-wide procedural expectations for addressing student behavior. That SCSs assessed these activities at lower levels of fidelity than the S3 teams points to the need for competency-building opportunities for school team members and their colleagues, and for SCSs to coach them along.

Other core activities that SCSs rated at statistically lower levels than did school S3 teams involved the use of decision-support data systems. These activities included using assessment results

to (a) identify factors contributing to school climate problems, (b) set priorities or plan activities, and (c) select appropriate interventions. Differences also were found for schools' efforts to review or analyze data on an ongoing basis to make project adjustments. It is not enough to simply identify problematic school climate issues. Achieving the best possible climate improvement also depends heavily on selecting and implementing interventions based on thorough assessments of factors contributing to those problem areas.

Leadership implementation drivers are not as explicitly described in the strategic steps of the WVMPSC as are competency and organization drivers. Two areas where SCSs provided limited data were the role and involvement of district S3 contacts and of school principals. SCSs reported that for most intervention schools, the district S3 contacts had at least some involvement in the S3 project at the school level, and for eight schools a fairly high level of involvement was noted. For eight other schools, however, district coordinators were reported to have had little involvement beyond serving as the contact for the grant. There could be valid reasons for varying levels of involvement. In some cases, district contacts may be confident that schools have the capacity to carry out the grant with little assistance, while for other schools they may believe the opposite to be true, and thus gauge their involvement accordingly. It is not clear from the limited findings in this study if district contact involvement has a positive or negative effect on schools' success.

On the other hand, research has shown that in modifying a school's climate and culture, school administrators can play a substantial role in clarifying and consistently modeling the beliefs and values embodied in any proposed changes in the school environment.[4] They can create the conditions in which students and staff internalize new practices, similar to the behavior expectations established through the WVMSPC. Although it is not clear the specific roles of school principals among S3 intervention schools, SCSs reported that in a large majority of schools, principals had been very or moderately involved in the S3 project, which bodes well for the project as a whole. There were a small number of schools where principals were reported to be largely uninvolved, a possible substantial barrier.

Although no specific guidance is provided in the WVMPSC on the appropriate number of behavioral norms or expectations for a school, a similar framework suggests that three to five clearly stated norms/expectations may be optimal.[5] They should be (a) stated clearly; (b) 1-3 words in length each; (c) positively stated to promote and support appropriate behavior; (d) comprehensive (apply to all students and staff, and all settings); and mutually exclusive. When asked to report on the behavior norms or expectations established through the S3 project, 21 of the 22 intervention schools responded. The number of behavior expectations listed ranged from two to 10 per school. While 13 listed five or fewer as recommended, eight schools listed from six to 10. Recommendations are offered for refining the behavior expectations established by schools.

School Climate

As a group, S3 intervention schools showed significant improvement with medium to large effect sizes in school climate as measured by the WV School Climate Index. Differences also were found for eight of the 20 indicators the Index comprises. It will not be possible to determine if the

[4] Beach, R. H., & Lindahl, R. A. (2007). The role of planning in the school improvement process. *Educational Planning, 16*(2), 19-43.

[5] Algozzine, B., Horner, R. H., Sugai, G., Barrett, S., Dickey, S. R., Eber, L., Kincaid, D., Lewis, T. & Tobin, T. (2010). *Evaluation blueprint for school-wide positive behavior support*. Eugene, OR: National Technical Assistance Center on Positive Behavior Interventions and Support. Retrieved from http://www.pbis.org/evaluation/evaluation_blueprint.aspx

improvements in the Index observed in this year's study are genuine until data are collected for the full 4 years (including a comparison group of nonintervention schools).

Based on survey data, there appears to be a fairly wide gulf between students and staff in their perceptions of school climate improvements. Students were much more likely to report that conditions stayed about the same compared to the previous year, whereas staff were much more likely to report conditions had gotten better. Discrepancies between student and staff perceptions of school conditions are not unheard of. One study found that although school staff were more likely than students to report having witnessed bullying in the school environment, they also were more likely than students to report feeling safe and a sense of belonging—both important constructs of school climate.[6] Another research study reported no association between student and staff ratings of overall school climate. Further, teachers' ratings of school climate may be more sensitive to classroom-level factors, such as disruptive behaviors, while students' perceptions may be more sensitive to school-level factors, such as student mobility, student-faculty ratio, and a change in principal.[7] With staff and students so far apart in their ratings of school climate improvement in the current study, there is a question about what factors may be driving the perceptions of both groups. Moreover, once identified, could these factors be targeted to further enhance schools' efforts in school climate improvement?

Recommendations

1. Based on the list of behavior expectations provided by intervention schools, schools should direct attention to establishing or refining behavior expectations with the assistance of the SCSs. Expectations should be five or fewer in number; 1-3 words in length; positively stated; comprehensive (apply to all students and staff, and all settings); and mutually exclusive. The findings from the fidelity assessment also indicate that schools should place additional emphasis on efforts to build understanding of behavior expectation among school staff.
2. Schools also should consider expanding their approaches for communicating and teaching behaviors that align with their expectations. By articulating specifically what appropriate behaviors look like relative to the established behavior expectations, developing specific lesson plans to guide the process of teaching appropriate behaviors, and modeling appropriate behaviors throughout the school environment, they will enhance the degree to which expectations are integrated into day-to-day school experience.
3. Essential to obtaining the best possible climate improvements is selecting and implementing interventions based on thorough assessments of factors contributing to problematic school climate issues. That SCSs assessed schools at lower levels of fidelity in this area than did school teams points to a need to redouble schools' efforts to explore these contributing factors and adjust their interventions accordingly.
4. The gap between students' and staffs' perceptions of school climate improvement suggests an opportunity to cultivate a deeper understanding of the school environment from the perspectives of these two groups. Identifying and leveraging factors driving the perceptions of both groups could provide direction for further efforts to improve school climate.

[6] Waasdorp, T., Pas, E. T., O'Brennan, L. M., & Bradshaw, C. P. (2011). A multilevel perspective on the climate of bullying: Discrepancies among students, school staff, and parents. *Journal of School Violence, 10*(2), 115-132.

[7] Mitchell, M. M., Bradshaw, C. P., & Leaf, P. J. (2010). Student and teacher perceptions of school climate: A multilevel exploration of patterns of discrepancy. *Journal of School Health, 80*, 271-279.

Contents

Executive Summary iii

Introduction 1

Evidence-Based Implementation 3

Methods 7

EQ1. Implementation Fidelity 7

EQ2. School Climate Improvement 7

Ancillary Data Analysis 9

Results 11

EQ1. Implementation Fidelity 11

EQ2. School Climate Improvement 12

School Climate Index comparisons 12

WV School Climate Survey results for students and staff 13

Results from Ancillary Data Analysis 16

Role and involvement of district S3 contacts and school principals 16

School defined behavior expectations 17

Discussion 21

Implementation 21

School Climate 22

School Defined Behavior Expectations 23

Recommendations 25

References 27

Appendix A. Strategic Steps of the WV Model for a Positive School Climate 29

Appendix B. Fidelity Rating Scale for Core Activities of the WV Model for a Positive School Climate 31

Appendix C. School-Based S3 Team and School Climate Specialist Fidelity Assessment Ratings: 2011-2012 39

Appendix D. S3 Team and School Climate Specialist Fidelity Assessment Ratings, 2011 to 2012 47

Appendix E. Comparison of S3 Team and School Climate Specialist Fidelity Assessments Ratings, 2011 and 2012 49

Appendix F. Chi Square Analysis of Student and Staff Perceptions of School Climate Change 51

List of Figures

Figure 1. Strategic Steps of the WV Model for Positive School Climate 2

Figure 2. Evidence Based Implementation Drivers 4

List of Tables

Table 1. School Climate Specialists' Overall Assessment of Fidelity With Which Schools had Implemented the Positive School Climate Model S3 Grant Project 12

Table 2. Overall School Climate Index Scores for S3 Intervention Schools, 2011 and 2012 School Years 13

Table 3. Nonparametric Tests for Changes in School Climate Indicator Index Scores Among S3 Intervention Schools From 2011 to 2012 14

Table 4. Student Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years 15

Table 5. Staff Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years 16

Table 6. School Climate Specialist Assessment of Nature of the District Coordinator's Participation and Support for the S3 Project 17

Table 7. School Climate Specialist Assessment of Nature of the School Principal Participation and Support for the S3 Project 17

Table 8. Categories of Behavior Norms or Expectations Established by S3 Intervention Schools 18

Table 9. Extent to Which Students and Staff at S3 Intervention Schools Provided Input Into Establishing School-Wide Behavioral Norms/Expectations 19

Table 10. Approaches Used by S3 Intervention Schools to Teach Behavior Norms/Expectations to Students and Staff 20

Table 11. Strategic Steps and Core Activities of the WV Model for a Positive School Climate Cross-Walk With Evidence Based Implementation Stages and Drivers 29

Table 12. Fidelity Rating Scale for Core Activities Corresponding to the "Organizing" Strategic Step of the WV Model for a Positive School Climate 31

Table 13. Fidelity Rating Scale for Core Activities Corresponding to the "Assessment" Strategic Step of the WV Model for a Positive School Climate 32

Table 14. Fidelity Rating Scale for Core Activities Corresponding to the "Building Support" Strategic Step of the WV Model for a Positive School Climate 34

Table 15. Fidelity Rating Scale for Core Activities Corresponding to the "Planning" Strategic Step of the WV Model for a Positive School Climate 36

Table 16. Fidelity Rating Scale for Core Activities Corresponding to the "Monitoring and Evaluation" Strategic Step of the WV Model for a Positive School Climate 38

Table 17. Wilcoxon Signed Ranks Test of S3-Team Implementation Fidelity Rating Improvement Between 2011 and 2012 47

Table 18. Wilcoxon Signed Ranks Test of School Climate Specialist Implementation Fidelity Rating Improvement Between 2011 and 2012 48

Table 19. Mann-Whitney U Test for S3 Team and School Climate Specialist Implementation Fidelity Rating Differences in 2011 49

Table 20. Mann-Whitney U Test for S3 Team and School Climate Specialist Implementation Fidelity Rating Differences in 2012 50

Table 21. Student Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years 51

Table 22. Staff Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years 53

Table 23. Student and Staff Comparisons of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years 55

Introduction

The West Virginia Department of Education (WVDE) Office of Healthy Schools was among 11 state educational agencies that in 2010 were awarded 4-year federal Safe and Supportive Schools (S3) grants. The intent of the S3 program was to support the measurement of—and targeted programmatic interventions to improve—conditions for learning at the high school programmatic level. In the context of S3, *conditions for learning* refers to school climate, defined by the National School Climate Center (NSCC) as "the quality and character of school life" reflecting "norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" within the school community (NSCC, n.d.).

The WV Model for Positive School Climate (WVMPSC) serves as West Virginia's framework for carrying out the S3 project. An underlying assumption of the model is that it provides a systematic, data-driven planning process by which schools may identify and implement effective interventions to improve conditions for learning and, ultimately, to improve student outcomes. The WVMPSC involves a set of strategic steps, including (a) organizing, (b) assessment, (c) building support, (d) planning and implementation, and (e) monitoring and evaluation (Figure 1). Within each of these five areas is a set of core activities that should be accomplished in carrying out the school climate improvement process (Appendix A, page 29). West Virginia enlists a cadre of school climate specialists (SCSs), who were trained to mentor school-based teams and school leaders through the school climate improvement process. The SCSs' primary role was to facilitate the strategic steps of the WVMPSC among the S3 intervention schools.

As part of the S3 grant, participating states must calculate a School Safety Score each year for every school funded. In support of school climate measurement, the U.S. Department of Education, Office of Safe and Healthy Students put forth a model based on a synthesis of available research and expert and stakeholder opinion (National Center on Safe Supportive Learning Environments, n.d.). In the model, school climate consists of three primary domains, each consisting of corresponding subdomains (in italics) as follows:

- **Engagement**—the quality of *relationships*, including *respect for diversity*, among students, staff and families; the level of *school participation* and involvement by families, staff, and students in school activities; and efforts by schools to *connect* with the larger community.
- **Safety**—the *physical* and *emotional* security of the school setting and school-related activities as perceived, experienced, and created by students, staff, families, and the community. The *use and trade* of illicit *substances* in the school setting and during school-related activities also is included in this domain.
- **Environment**—the physical and mental health supports available that promote student *wellness*, the *physical* condition of school facilities, the *academic environment*, and the *disciplinary* tone of the school—i.e., the fairness and adequacy of disciplinary procedures.

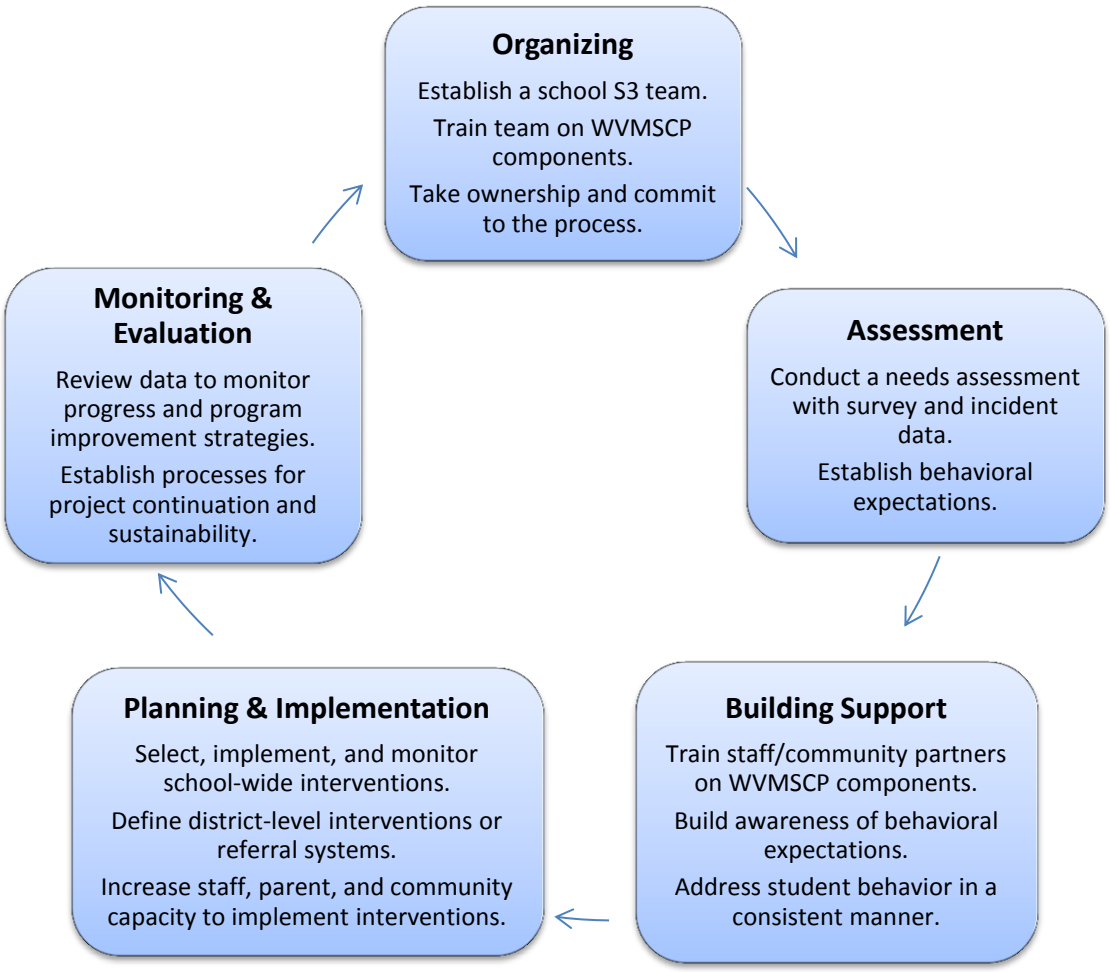


Figure 1. Strategic Steps of the WV Model for Positive School Climate
The WVMPSC involves a set of strategic steps, including (a) organizing, (b) assessment, (c) building support, (d) planning and implementation, and (e) monitoring and evaluation. Each strategic step includes a set of core activities that should be accomplished in carrying out the school climate improvement process. Only selected core activities are shown here for each strategic step of the model. A complete listing of core activities is provided in Appendix A.

To meet the school safety score requirement set forth for the S3 program, the WVDE Office of Research developed the WV School Climate Index (Whisman, 2012a). The index—derived from 20 indicators drawing from student and staff survey data and selected discipline incident data reported in the West Virginia Education Information System (WVEIS)—provides an overall measure of school climate tapping all domains and subdomains in the federal school climate measurement model described above.

S3 implementation began in the 2010-11 school year (SY) during which baseline data collection for school climate measurement began with 22 intervention schools and 25 control

schools[8]. Also that year, intervention schools began mobilizing for implementation (i.e., forming school-based S3 planning teams, establishing school-wide buy-in, initiating data-driven planning processes, etc.). During SY 2011-12, schools began implementing programmatic interventions to address school climate issues identified through their Year 1 assessment and planning.

The initial evaluation plan for the WV S3 program proposed to assess five evaluation questions:

EQ1. To what extent do participating schools implement the program with fidelity relative to the WVMPSC?

EQ2. To what extent do program initiatives improve school climate and culture?

EQ3. To what extent do participating and nonparticipating schools differ in (a) school climate and (b) discipline incident counts?

EQ4. To what extent do perceptions of school climate and student health knowledge predict behavioral incident counts?

EQ5. To what extent is the School Safety Score related to student achievement?

This interim report, which primarily addresses EQ1, and to some extent EQ2, is intended to provide midstream feedback to the WVDE program staff. EQ3 and EQ4 are considered more long-term outcomes to be assessed in the final year of the grant. EQ5 was addressed for the baseline year of school climate measurement (see Whisman 2012b).

For EQ1, implementation fidelity in the S3 project refers to how well schools adhered to the strategic steps and core activities framed by the WVMPSC—not how well they implemented programmatic interventions. Thus the relevant null hypothesis regarding implementation fidelity is that schools are not implementing S3 grant activities in a manner consistent with the WVMPSC; the alternative is that they are. For measurement purposes, however, what is reported herein is the extent to which fidelity was met.

The relevant null hypothesis for EQ2 is that no school climate improvements occurred in intervention schools between 2011 and 2012; the alternative is that school climate improvements did, indeed, occur.

Evidence-Based Implementation

The National Implementation Research Network (NIRN) defines *implementation* as "a specified set of activities designed to put into practice an activity or program of known dimensions" (NIRN, n.d.a). NIRN also describes implementation as a developmental process that occurs in discernible stages: initial *exploration* where readiness for implementation is assessed; *installation* where capacity building processes (e.g., staff selection and training) are initiated and resources are assembled to support implementation; *initial implementation*, an awkward transitional stage where new activities are beginning to be put into place and former ways of do-

[8] Initially, there were 23 intervention schools and 25 control schools; however, after Year 1 of the grant, two intervention schools were merged and thereafter treated as one. The 25 control schools represent all other high schools located in the same county district as intervention schools.

ing business may be adapted or abandoned altogether; to *full implementation* where capacity has been built and organizational supports are sufficiently internalized into the day-to-day operations of the organization (NIRN, n.d.b).

In the context of the WV S3 project, the set of activities referred to in the implementation definition (above) fall within the strategic steps of the WVMPSC. Furthermore, the strategic steps and core activities tend to follow a developmental path coinciding with the implementation stages described by NIRN (n.d.b). Core activities within the *organizing, assessment,* and *building support* strategic steps align mostly with the exploration and installation stages of implementation (Table 11 on page 29). In these steps, S3 schools assemble and train teams to lead the implementation process, begin building relationships and securing commitment and support, conduct self-assessments in the form of environmental scans and SWOT analyses to evaluate organizational capacity for S3, and initiate data-driven planning processes and goal setting. As one might expect, it is in the *planning and implementation* step that schools enter into the initial implementation stage, and as staff progressively internalize new practices they move to full implementation of programmatic interventions. *Monitoring and evaluation,* considered essential elements of full implementation, inform course corrections and sustainability.

In addition to progressing through the described stages, well implemented interventions tend to share common components—or drivers—that support the effective use of interventions to produce positive outcomes (Fixsen & Blase, 2008). Drivers fall into three categories (Figure 2). *Competency* drivers have to do with building organizational and staff capacity to be effective in implementation. In the context of S3 this is done by assembling and training teams with staff receptive to taking on the tasks necessary to carry out the project effectively, and by

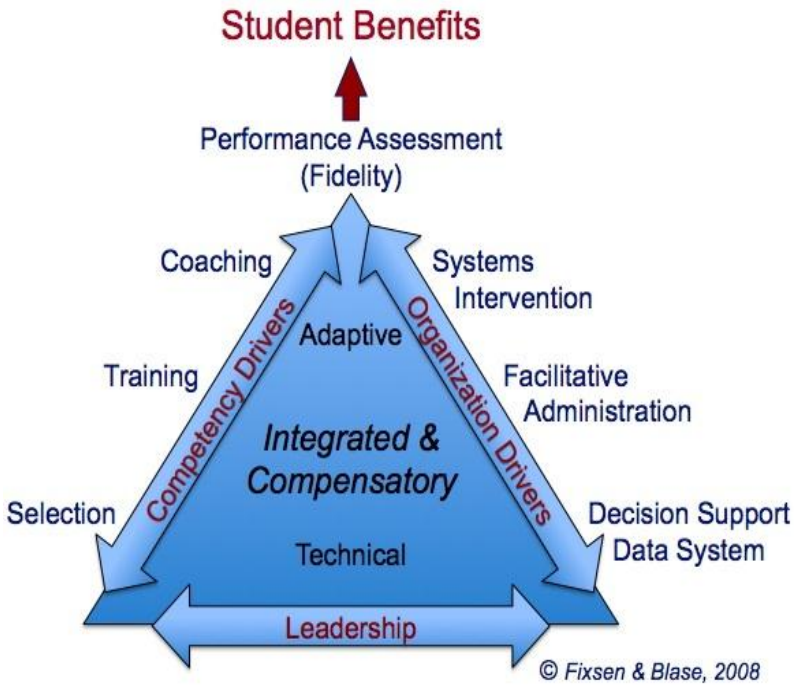


Figure 2. Evidence Based Implementation Drivers
Well implemented interventions tend to share common components—or drivers—that support the effective use of interventions to produce positive outcomes. Drivers fall into three categories: competency, organization, and leadership. Figure fromFixsen, D. L., & Blase, K. A. (2008). *Drivers framework.* Chapel Hill, NC: The National Implementation Research Network, Frank Porter graham Child Development Institute, University of North Carolina. Used with permission.

providing ongoing supports in the form of training and coaching (technical assistance) to teams and school staff in general (see Table 11 on page 29). Here the SCSs play an important role as well.

The WVMPSC, and S3 for that matter, were intentionally designed to be data driven initiatives. As such, *organizational* drivers are abundantly represented among the strategic steps and corresponding core activities (see Table 11, page 29). This is especially true with regard to the application of decision-support data systems for selecting, implementing, and monitoring school level programmatic interventions, and for leveraging systems intervention drivers to facilitate the internalization and sustainability of S3 practices into the day-to-day practices of the school.

Leadership drivers can be technical in nature and take the form of good management practices in initiating and integrating new interventions and in dealing with known barriers. Leadership also can be adaptive in nature and take the form of providing transformational guidance and effectively responding and adapting to unforeseen challenges. Leadership drivers, both technical and adaptive, come into play in S3 with regard to the role and involvement of district S3 contacts with their respective schools, the leadership characteristics of school principals, and to some extent, school based teams as they build support and commitment among colleagues, students, parents, and community partners. Leadership drivers were not as explicitly noted as competency and organizational drivers in the crosswalk of the WVMPSC. They are however important and are thought to be essential components threaded throughout the process.

Methods

As mentioned earlier, this report is limited to the first two years of the 4-year evaluation and is focused on two evaluation questions; accordingly, methods described here are for EQ1 and EQ2 only.

EQ1. Implementation Fidelity

To assess the degree of adherence to the West Virginia Model for Positive School Climate (WVMPSC), or *fidelity*, we developed 4-point rubrics for each core activity (Appendix B, page 31). The rubric rating scales ranged from *missing* to *strong fidelity*, but also included additional response options of *too early to tell* and *don't know*. Two respondent groups complete the implementation fidelity assessments annually, toward the end of each academic year: the cadre of school climate specialists (SCSs) and school-based leadership teams in each Safe and Supportive Schools (S3) intervention school. SCSs submit one assessment response for each school they serve; members of the S3 teams collaborate to complete one rubric for their school, representing their consensus view of progress made during the year.

To gauge change in implementation fidelity over time, we compared ratings between school years for each group. Fidelity assessment data were available from both groups (S3 teams and SCSs) for both project years (2011 and 2012) for only 15 intervention schools. Since looking at change over time represented an analysis of two dependent paired samples but among only 15 schools, a distribution free approach was warranted. The Wilcoxon sign rank test was used.

We assumed that S3 teams and SCSs would have different opinions about the extent to which schools were implementing with fidelity—especially considering SCSs have more experience with the WVMPSC and all but one of the SCSs currently assist multiple schools (up to eight). Therefore, SCSs should have a broader frame of reference against which to judge implementation progress. Tests for differences between SCSs and school-based S3 teams amounted to a comparison of independent samples, so we used the Mann-Whitney U test.

EQ2. School Climate Improvement

Two approaches were taken to assess school climate improvement for purposes of this study. First, we compared overall school climate index scores for S3 intervention schools between the 2010-11 and the 2011-12 school years to assess change over time. For this purpose sufficient data were available to calculate the index for 21 intervention schools and 20 nonintervention schools during the baseline 2010-11 school year. Index scores were computed using student and staff survey data and selected discipline incident data collected from both intervention and nonintervention comparison schools in the baseline year, with each school's index score calculated relative to the aggregate of all schools combined. The nonintervention schools, however, were required to participate in data collection only in the baseline 2010-11 school year, but not again until the 2013-14 school year—the final year of the S3 grant program. We calculated annual changes in the index for intervention schools relative to data from the nonintervention schools held constant at the 2010-11 baseline levels.

In interpreting the results it is important to note that the index was calculated as a 9-point stanine scale score from an asset-based perspective—i.e., higher index scores correspond to more favorable school climate conditions. Accordingly, increases in scores over time should be interpreted to indicate improvements in school conditions. As with the fidelity assessment described above, the unit of analysis was the school. Because we are comparing the same schools over 2 years—i.e., two dependent paired samples—and only 21 schools were included, it seemed prudent to assume a distribution free approach was appropriate. The corresponding nonparametric procedure was the Wilcoxon sign rank test, which we replicated for each of the 20 indicators making up the overall index[9].

Second, we added a question to the spring 2012 administration of the WV School Climate Surveys for students and staff. In the question, we listed a series of items corresponding to 20 indicators contained within the school climate index. We asked respondents to indicate whether the items have changed compared to the previous year. Although there are only 20 indicators in the school climate index, we used 22 items in the survey in order to split two indicators. *Relationships at school* was split to capture relationships among students and relationships between students and staff. Likewise, we split *students' avoiding school activities or specific places in school* to distinguish between school activities on the one hand and places at school on the other. The questions included a 5-point response scale, ranging from *a lot better* to *a lot worse*, with a midpoint response of *stayed about the same*. Only students and staff who indicated in a screening question that they had attended or worked at the school the previous school year were presented with these items.

The chi square statistic was used to test the null hypothesis of *no improvements* in school climate. The initial dataset consisted of 4,537 students and 697 staff responses. Preliminary data analysis indicated that most respondents in both groups reported conditions to have either improved or stayed the same, whereas few indicated conditions had gotten worse. The latter was problematic, especially with regard to staff responses, because the chi square statistic becomes unreliable when expected cell counts are less than five—which was the case for several items analyzed. To resolve this issue, we collapsed the 5-point response scale to a 3-point scale consisting of *a little* or *a lot better, stayed about the same,* and *a little* or *a lot worse*. Finally, representation in the dataset was lopsided in favor of students by a 6.5 to 1 ratio. Although it did not necessarily violate the assumptions for the proposed analysis, another step was taken to balance the representation of the two groups by selecting a random sample of students in a number equal to the 697 staff responses.

We worked with the assumption that, all things being equal, students and staff would be equally likely to think conditions had gotten better, stayed the same, or gotten worse. As such, we constructed a dummy dataset with expected cell proportions equally distributed at 33.3% in each of the collapsed response categories. Cross-tabulations were then performed separately for each group comparing cell proportions observed from the survey data against the expected proportions. Subsequently, we conducted cross tabulations and chi square tests to compare observed cell proportions between students and staff for group differences.

[9] See Whisman, 2012a for a more detailed description of the development and application of the WV School Climate Index.

Ancillary Data Analysis

When entering into a memorandum of understanding (MOU) with the WVDE, county school districts committed to certain obligations relative to the S3 project, including (a) assigning a central office staff member to serve as contact for the S3 project, (b) providing leadership support to the 22 intervention schools, and (c) providing fiscal and management support. How much support to provide, and the level of involvement of the district S3 contact, were decisions left to the districts and schools. Anecdotally, however, SCSs pointed out that wide variation existed among districts regarding support and involvement. To gauge the level of variation, SCSs were asked in the 2012 fidelity assessment the extent of participation and support schools received from their respective district contacts. In previous feedback, SCSs suggested that the degree to which school principals are engaged in and support the S3 project—which also varied widely—may have some bearing on S3 team functioning and progress. Consequently, SCSs also were asked in the 2012 fidelity assessment to characterize the nature of participation and support each school's principal contributed to the S3 project.

Additionally, school S3 teams were asked a few questions beyond the fidelity assessment rubrics. A critical component of the WVMPSC calls for schools to establish behavioral norms or expectations for students and staff, which in turn serve as a basis for selecting and implementing programmatic interventions. Teams were asked to list the behavioral norms or behavioral expectations the school had defined for students and staff. Space was provided for up to ten open-ended responses. The assessment also asked teams the extent to which students and staff at the school provided input into establishing the school-wide behavioral norms/expectations. Finally, teams were asked to indicate the methods or processes used to teach students and staff about the behavior norms or expectations. Responses to the added questions were categorized and presented descriptively.

Results

EQ1. Implementation Fidelity

Charts showing school-based Safe and Supportive Schools (S3) team and school climate specialist (SCS) fidelity assessments of the core activities on the West Virginia Model for Positive School Climate (WVMPSC) for 2011 and 2012 are presented in Appendix C (page 39). Based simply on the observed modal responses from the charts, there were three core activities for which both groups indicated strong fidelity with the components of the WVMPSC, and they held that opinion in both 2011 and 2012. Two of these activities, establishing and training the school-based team and establishing ownership and commitment to the S3 initiative, fell in the *organizing* strategic step of the WVMSCP. The third, in the *assessment* strategic step, had to do with conducting a strengths, weaknesses, opportunities, and threats (SWOT) analysis to examine the school's internal operations relative to the S3 project. Note that these items were indicated as being implemented with strong fidelity based on modal responses—i.e. the rating most frequently selected by both the S3 teams and SCSs. There was variation in their ratings, however, suggesting room for improvement.

All other core activities generally appeared to be rated at lower levels of fidelity by both groups, particularly for the 2011 ratings. When looking at assessment ratings within groups, Wilcoxon signed ranks tests confirmed that the fidelity assessments in 2012 tended to be higher than those in the previous year. Although there were no improvements on activities in the *organizing* strategic step among either group, the ratings of S3 teams showed improvement on three of six core activities under the *assessment* strategic step, and on all activities under the *building support* and *planning* strategic steps (Table 17, page 47). They also indicated statistically significant increases in implementation fidelity on one core activity under the *monitoring and evaluation* step—that the team reviewed or analyzed data on an ongoing basis to make project adjustments. The ratings of the SCSs showed significant increases on every core activity under the *Assessment, Building Support, Planning,* and *Monitoring and Evaluation* strategic steps between 2011 and 2012 (Table 18, page 48). Across most core activities the observed improvements consisted of moving from being altogether *missing* or implemented with *weak* fidelity in 2011 to being implemented at *weak* or *moderate* fidelity in 2012.

When comparing the 2011 assessment ratings between S3 teams and SCSs, statistically significant differences were observed on only three core activities (Table 19 on page 49). For all three, S3 teams rated their implementation at higher levels compared to SCSs. The activities included two under the *building support* strategic step—informing parents and community partners about the S3 initiative and securing their commitment, and building understanding of S3 behavioral norms among school-level professional and support staff. The third activity had to do with establishing plans and processes for ensuring long-term project continuation and sustainability under the *monitoring and evaluation* strategic step.

Comparing the two groups on the 2012 assessment ratings, however, revealed differences on seven core activities (Table 20 on page 50) and in all cases school-based S3 teams rated their implementation of activities at greater levels of fidelity than the SCSs. The first had to do with establishing ownership and commitment under the *organizing* strategic step. Collectively

based on median scores, this activity was rated as being implemented with fairly strong fidelity by both groups, yet the chart of assessment ratings for this activity at the bottom of page 39 shows that all school S3 teams indicated implementation with strong fidelity, whereas SCSs rated only 10 of 15 schools at strong fidelity. They also differed on three of five activities under the *building support* strategic step: informing and securing commitment of parents and community partners; building understanding of behavioral norms among school-level professional and support staff; and defining school-wide procedural expectations for addressing student behavior.

Under the *planning* strategic step, differences were found on two core activities—both having to do with using assessment results to inform the selection of interventions. The first gauges the use of comprehensive assessment results to identify factors contributing to school climate problems, set priorities, or plan activities; and the second dealt with using contributing factors identified in the assessment process to select appropriate interventions. This finding points to a potential problem in terms of achieving the best possible outcomes in school climate improvement efforts; if schools are selecting interventions on the basis of inadequate assessments of factors contributing to problematic school climate issues, then the likelihood of achieving better outcomes may be diminished. Finally, under the *monitoring and evaluation* strategic step, differences were found for one activity—reviewing or analyzing data on an ongoing basis to make project adjustments.

In the 2012 fidelity assessment completed by SCSs, an additional question about implementation fidelity relative to the WVMPSC was included to obtain respondents' overall view of schools' implementation progress. SCSs reported none of the 22 intervention schools had done an excellent job in carrying out the WVMPSC, yet they did indicate that 12 (55%) were implementing at above average levels (Table 1). Of the remaining schools, they indicated nine (41%) were implementing at average levels, and only one at below average levels.

Table 1. School Climate Specialists' Overall Assessment of Fidelity With Which Schools had Implemented the Positive School Climate Model S3 Grant Project

	Frequency	Percent
Below Average	1	4.5
Average	9	40.9
Above Average	12	54.5
Excellent	0	0.0
Total	22	100.0

EQ2. School Climate Improvement

School Climate Index comparisons

Sixteen of 21 intervention schools experienced increases in their overall school climate index between 2010-11 and 2011-12 (Table 2). Across all schools, the median overall index score increased from 4.75 at baseline year to 5.17 the following year. The median annual increase in the index scores was 0.44 points on the 9-point stanine scale; however, three schools (Intervention Schools 14, 18, and 21) saw comparatively large jumps of 1.37 to 1.73 points. The Wilcoxon signed-rank test bears out that the observed improvement among intervention schools was statistically significant (z = -2.92, p = 0.005). The corresponding effect size (r = -0.45) suggests a medium to large increase in index score over the 2 years.

Table 2. Overall School Climate Index Scores for S3 Intervention Schools, 2011 and 2012 School Years

School	2011	2012	Annual change
Intervention School 1	4.57	4.63	.06
Intervention School 2	5.59	6.36	.77
Intervention School 3	3.11	4.03	.92
Intervention School 4	4.62	5.55	.93
Intervention School 5	3.79	4.22	.43
Intervention School 6	5.33	4.53	-.80
Intervention School 7	5.86	6.30	.44
Intervention School 8	5.72	5.94	.22
Intervention School 9	5.85	6.29	.44
Intervention School 10	5.04	4.63	-.41
Intervention School 11	5.48	5.47	-.01
Intervention School 12	4.75	4.63	-.12
Intervention School 13	5.42	5.17	-.25
Intervention School 14	4.46	6.19	1.73
Intervention School 15	4.73	5.51	.78
Intervention School 16	3.32	4.31	.99
Intervention School 17	4.48	4.67	.19
Intervention School 18	3.33	4.82	1.49
Intervention School 19	5.10	5.90	.80
Intervention School 20	4.71	5.14	.43
Intervention School 21	5.47	6.84	1.37

Replicating the analysis on each of the 20 indicators making up the overall school climate index revealed statistically significant improvements on eight of the 20 indicators (Table 3). Three of the indicators fall in the *engagement* domain of the school climate measurement model, and include *relationships at school* (z = -3.33, p = 0.001), *respect for racial, ethnic, or cultural diversity* (z = -3.09, p = 0.002), and *meaningful participation in school* (z = -3.35, p = 0.001). Effect sizes (r) ranged from -0.48 to -0.52, suggesting moderate to strong increases in scores.

Three indicators in the *safety* domain showed significant improvements. In the area of physical safety *physical fights on school property* (z = -2.58, p = 0.01) and *students' carrying weapons on school property* (z = -2.90, p = 0.04) improved. *Students' use of tobacco/alcohol/drugs on school property* (z = -2.40, p = 0.02) also improved. Effect sizes were lower (-0.32 to -0.40), but indicated medium size effects.

Significant improvements were observed on two indicators in the *environment* school climate domain: *supportive academic environment* (z = -3.37, p = 0.001) and *discipline problems reported at school* (z = -3.42, p = 0.001). Strong effect sizes were observed for these indicators.

WV School Climate Survey results for students and staff

Testing against the expectation that one third (33.3%) of respondents would say that the 22 items corresponding to school climate conditions had gotten better, stayed the same, or gotten worse, respectively, all cross-tabulations were statistically significant among students (χ^2 = 30.3 to 206.6, p<0.0001) and staff (χ^2 = 61.3 to 274.3, p<0.0001)[10]. This depended, however, on the response category. Fairly low and statistically significant percentages of both students and staff reported that conditions had deteriorated; across all 22 items an average of only 11% of students and 5% of staff indicated things had gotten a little or a lot worse compared to the previ-

[10] Complete cross-tabulation and chi square results are provided for students in Table 21, page 51 and for staff in Table 22, page 53).

ous year (Table 4 and Table 5). On the opposite end of the response scale however, students were much less likely than staff to indicate things had gotten a little or a lot better, and much more likely to indicate things had stayed about the same. On only four of the 22 items did the proportion of students exceed the expectation by a statistically significant margin. These included *relationships among students, meaningful opportunities for participation in school, physical fights on school property,* and *safety and security measures observed at school* (Table 4). Another statistically significant cell proportion was found among students (*students' use of tobacco/alcohol/drugs on school property*), which at a cell proportion of 26.1% was in the wrong direction from the expectation. Across all 22 items an average of 55% of students indicated conditions were about the same as the previous year, whereas an average of 34% indicated conditions had gotten better.

Table 3. Nonparametric Tests for Changes in School Climate Indicator Index Scores Among S3 Intervention Schools From 2011 to 2012

School climate domain		Indicator	2011 median	2012 median	*z*	*p*	*r*
Engagement	Relationships	Relationships at school	4.60	5.40	**-3.33**	**0.001**	**-0.51**
	Respect for Diversity	Respect for racial, ethnic, or cultural diversity	4.75	5.75	**-3.09**	**0.002**	**-0.48**
	Participation	Meaningful participation in school	4.67	6.33	**-3.35**	**0.001**	**-0.52**
Safety	Emotional Safety	Bullying at school and cyber-bullying anywhere	4.50	5.25	-1.11	0.26	
		Students avoiding school activities or specific places in school	4.50	5.00	-0.75	0.45	
		Students being called hate-related words / seeing hate-related graffiti	5.00	4.50	-0.63	0.53	
		Students perceptions of personal safety at school	5.00	5.00	-1.86	0.06	
	Physical Safety	Physical fights on school property	4.50	5.50	**-2.58**	**0.01**	**-0.40**
		Students carrying weapons on school property	5.00	5.00	**-2.09**	**0.04**	**-0.32**
		Students reports of safety/security measures observed at school	5.00	6.00	-0.99	0.32	
		Teachers threatened with injury or physically attacked by students	6.00	7.00	-1.40	0.16	
		Threats and injuries with weapons on school property	5.00	5.00	-0.58	0.56	
		Violent and other crime incidents at school	6.00	5.00	-1.27	0.21	
	Substance Abuse	Students' use of tobacco/alcohol/drugs on school property	4.67	5.67	**-2.40**	**0.02**	**-0.37**
Environment	Physical Environment	Teachers' and students' reports on school conditions	4.50	5.00	-1.54	0.12	
	Academic Environment	Supportive academic environment	4.88	5.50	**-3.37**	**0.001**	**-0.52**
	Well-Being	Students' physical or mental health	4.60	5.00	-1.19	0.23	
	Disciplinary Environment	Discipline problems reported at school	4.50	5.25	**-3.42**	**0.001**	**-0.53**
		Reports of gangs at school	5.50	5.50	-0.13	0.89	
		Serious disciplinary actions taken by schools	6.00	5.00	-1.31	0.19	

Table 4. Student Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Item	Percent a little or a lot better	Percent about the same	Percent a little or a lot worse
Average	34.5	55.0	10.6
Relationships among students	45.3 [a]	43.7 [a]	11.1 [a]
Relationships among students and staff	37.6	50.4 [a]	12.1 [a]
Respect for racial, ethnic, or cultural diversity	32.4	59.4 [a]	8.2 [a]
Meaningful opportunities for participation in school	40.2 [a]	51.2 [a]	8.7 [a]
Bullying at school	35.8	48.1 [a]	16.1 [a]
Students perceptions of personal safety at school	32.9	59.1 [a]	8.0 [a]
Students avoiding school activities for fear of being harmed	33.2	59.5 [a]	7.3 [a]
Students avoiding specific places in school for fear of being harmed	32.5	60.6 [a]	7.0 [a]
Students being called hate-related words and seeing hate-related graffiti	30.9	57.7 [a]	11.4 [a]
Physical fights on school property	41.9 [a]	45.1 [a]	13.1 [a]
Students carrying weapons on school property	36.1	57.2 [a]	6.7 [a]
Safety and security measures observed at school	38.8 [a]	54.4 [a]	6.9 [a]
Teachers threatened with injury or physical attack by students	33.6	61.5 [a]	4.8 [a]
Threats and injuries with weapons on school property	31.9	60.6 [a]	7.5 [a]
Violent and other crime incidents at school	32.3	61.5 [a]	6.3 [a]
Gang activity at school	31.0	62.5 [a]	6.4 [a]
Students use of tobacco/alcohol/drugs on school property	26.1 [a]	47.7 [a]	26.2 [a]
School conditions (clean and in good condition)	31.8	51.6 [a]	16.6 [a]
The school being a supportive academic environment	36.3	55.7 [a]	8.0 [a]
Students' physical or mental health	30.2	59.2 [a]	10.6 [a]
Discipline problems reported at school (disruptive behavior or cutting classes/truancy)	31.9	51.5 [a]	16.5 [a]
Disciplinary actions taken by schools (suspensions, detention, etc.)	35.2	51.7 [a]	13.1 [a]

[a] Indicates statistically significant difference from the expected cell proportion of 33.3%.

Conversely, staff were much more likely to indicate conditions had improved relative to the expectation. Across all 22 items an average 51% of staff indicated things had gotten a little or a lot better and on only two items did they fail to beat the expected cell proportion of 33.3%. These included *students' use of tobacco/alcohol/drugs on school property* and *respect for racial, ethnic, or cultural diversity* (Table 5).

In the results above, student and staff responses were compared against an expectation that equal proportions of each group would report that conditions had improved, stayed the same, or declined. When comparing students and staff against each other, differences similar to those reported above were observed. On all 22 items the proportion of staff indicating things had gotten a little or a lot better exceeded the proportion of students having the same opinion by significant margins (see Table 23 on page 55). Furthermore, on 16 of 22 items statistically greater proportions of students reported conditions had stayed about the same and, although at lower percentages, on 19 items a statistically greater proportion of students reported things had gotten a little or a lot worse. All told, these findings reveal fairly sharp differences between students

and staff in their perception of school climate improvement between the 2011 and 2012 school years.

Table 5. Staff Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Item	Percent a little or a lot better	Percent about the same	Percent a little or a lot worse
Average	51.0	44.4	4.6
Relationships among students	58.3 [a]	39.1 [a]	2.6 [a]
Relationships among students and staff	60.9 [a]	33.9	5.2 [a]
Respect for racial, ethnic, or cultural diversity	37.9	60.5 [a]	1.6 [a]
Meaningful opportunities for participation in school	64.7 [a]	33.8	1.4 [a]
Bullying at school	48.3 [a]	44.8 [a]	6.8 [a]
Students perceptions of personal safety at school	56.5 [a]	41.3 [a]	2.2 [a]
Students avoiding school activities for fear of being harmed	50.4 [a]	48.3 [a]	1.3 [a]
Students avoiding specific places in school for fear of being harmed	49.3 [a]	49.0 [a]	1.7 [a]
Students being called hate-related words and seeing hate-related graffiti	50.6 [a]	45.5 [a]	3.9 [a]
Physical fights on school property	63.4 [a]	32.7	3.9 [a]
Students' carrying weapons on school property	47.7 [a]	51.3 [a]	1.0 [a]
Safety and security measures observed at school	61.0 [a]	37.1	1.9 [a]
Teachers threatened with injury or physical attack by students	46.1 [a]	50.4 [a]	3.5 [a]
Threats and injuries with weapons on school property	46.0 [a]	53.1 [a]	0.9 [a]
Violent and other crime incidents at school	49.9 [a]	49.4 [a]	0.7 [a]
Gang activity at school	41.2 [a]	58.3 [a]	0.6 [a]
Students use of tobacco/alcohol/drugs on school property	33.4	49.9 [a]	16.8 [a]
School conditions (clean and in good condition)	46.2 [a]	42.8 [a]	11.0 [a]
The school being a supportive academic environment	62.7 [a]	33.5	3.8 [a]
Students' physical or mental health	42.4 [a]	53.1 [a]	4.5 [a]
Discipline problems reported at school (disruptive behavior or cutting classes/truancy)	49.8 [a]	36.3	13.9 [a]
Disciplinary actions taken by schools (suspensions, detention, etc.)	55.7 [a]	33.4	10.9 [a]

[a] Indicates statistically significant difference from the expected cell proportion of 33.3%.

Results from Ancillary Data Analysis

Role and involvement of district S3 contacts and school principals

SCSs reported that in eight intervention schools (36%) the district coordinators have been very involved in supporting the S3 project by attending meetings, contributing to planning processes, or other forms of support (Table 6). There also were five schools (23%) where district coordinators were reported to have been involved but at more modest levels. Conversely, at eight schools the district coordinators served only as the county contact for the grant but otherwise were not involved in the project, according to SCSs. One SCS response indicated district contact involvement different from the options provided in the assessment, but the SCS's description of that involvement indicated it was in the form of fiscal management and support as noted among the expectations listed in the MOU.

Table 6. School Climate Specialist Assessment of Nature of the District Coordinator's Participation and Support for the S3 Project

	Frequency	Percent
Total	22	100.0
The District Coordinator serves only as the county contact for the S3 Grant, but otherwise is not involved in project planning and implementation at this school.	8	36.4
In addition to serving as the county contact, the District Coordinator has some involvement in project planning and implementation at this school (i.e., attends a few team meetings, communicates S3 expectations, etc.).	5	22.7
The District Coordinator has been very involved in project planning and implementation at this school (i.e., frequently attends team meetings, contributes substantially to planning, provides implementation guidance, etc.).	8	36.4
Don't Know	0	0
Other	1	4.5

In a large majority of intervention schools—15 (68%) of the 22—principals were reported to be very involved in the S3 project by frequently attending team meetings, contributing to planning processes and providing implementation guidance (Table 7). In another four (18%), school principals were reported to be involved in the project, but at lower levels. For only two schools were principals reported to be largely uninvolved.

Table 7. School Climate Specialist Assessment of Nature of the School Principal Participation and Support for the S3 Project

	Frequency	Percent
Total	22	100.0
The Principal for the most part is not involved in project planning and implementation at this school.	2	9.1
The Principal has some involvement in project planning and implementation at this school (i.e., attends a few team meetings, communicates S3 expectations, etc.).	4	18.2
The Principal has been very involved in project planning and implementation at this school (i.e., frequently attends team meetings, contributes substantially to planning, provides implementation guidance, etc.).	15	68.2
Don't Know	0	0
Other	1	4.5

School defined behavior expectations

Although no specific guidance is provided in the WVMPSC on setting an appropriate number of behavioral norms or expectations for a school, from a similar framework—School-Wide Positive Behavior Intervention Supports (SWPBIS)—three to five clearly stated norms/expectations may be optimal (Algozzine, et al., 2010). Behavior norms or expectations also should be stated clearly and in ways that promote and support appropriate behavior among students and staff. Among other criteria, expectations should be 1-3 words in length each, positively stated, comprehensive (apply to all students and staff, and all settings); and mutually exclusive.

Twenty-one of the 22 intervention schools responded with a total of 105 behavior norms or expectations established for the schools through the S3 project. The number of behavior expectations listed by the S3 intervention schools ranged from two to 10 per school. Most schools,

13 (62%) of those reporting, listed five or fewer in alignment with the recommendation. The remaining 8 schools having set more than five may benefit from revisiting the issue and refining their behavior expectations.

It was not always clear the explicit behaviors the expectations were intended to reinforce; however, it was possible from an inspection of the responses to group them into categories. Although some subjectivity entered into the categorization process, a fairly high level of commonality was observed in the categories into which behavior expectations fell. For example, 16 (76%) of the 21 schools listed behavioral expectations having to do with being respectful or having respect for self and others (Table 8). Thirteen schools (62%) articulated expectations related to timeliness, presumably targeting issues of tardiness or attendance identified in their needs assessment processes. Most of the time these were as simply stated as "be on time," whereas a few were more specifically stated—"attend school every day." Some schools appeared to have embedded expected behaviors within slogans, for example "Rigor, Relevance, Relationships," although it is not always clear from the slogans precisely the behaviors targeted. Other categories into which behavior expectations fell included, in a descending number of schools, self-control, zero tolerance, preparedness, responsibility, kindness, engagement, staff practices, being on task, and safety (Table 8).

Table 8. Categories of Behavior Norms or Expectations Established by S3 Intervention Schools

Category	Examples	Number of schools	Percent of schools	Number of behavior norms/ expectations	Percent of behavior norms/ expectations
Respectfulness	Be Respectful; Respect is key; Respect yourself and others	16	76.2	18	17.1
Timeliness	Attend school every day; Be on time; Be present	13	61.9	16	15.2
Slogan	Dare to Dream; Rigor, Relevance, Relationships; Bell to bell will serve you well	6	28.6	11	10.5
Self-Control	Adjust your actions; Beware of wrong choices; Exercise good judgment	5	23.8	11	10.5
Zero Tolerance	Violence is not tolerated at our school; Zero tolerance for bullying	7	33.3	10	9.5
Preparedness	Be prepared; Be ready to learn; Come to class prepared to learn	8	38.1	7	6.7
Responsibility	Be Responsible; Learning is a responsibility	6	28.6	6	5.7
Kindness	Be polite; Practice kindness; Speak with kindness	5	23.8	5	4.8
Engagement	Be productive; Give your best effort	4	19.0	4	3.8
Staff Practices	Greet students at the door	4	19.0	3	2.9
On Task	Initiative; Learning	2	9.5	3	2.9
Safety	Be Safe	3	14.3	2	1.9
Other	Be honest; Be a good citizen; Practice unity	2	9.5	9	8.6

It is also noteworthy that the total number of behavior expectations in each category in Table 8 often exceeded the number of schools expressing the expectation, indicating that to some extent, schools expressed their expectations in certain areas in multiple ways. For example, there were 16 behavior expectations under the timeliness category but for only 13 schools (Table 8). One school listed both "be on time" and "attend school regularly" as expectations for students. The school appears to be drawing a distinction between tardiness on the one hand and full blown attendance on the other, an understandable stance where both have been identified as issues in need of intervention. This example also meets with the recommendation that expectations be mutually exclusive.

For the most part, the behavior expectations provided by the S3 intervention schools were clearly and positively stated. Some, however, were not. For example, some were directives or pronouncements of policy that were far too wordy and negatively stated, for example, "Be where you are supposed to be when you are supposed to be there," or "You may not have more than 10 unexcused absences in any one class in a semester." Others—for example, "Do what you are supposed to be doing"—are ambiguous and appear to provide little information about what students and staff are indeed supposed to be doing. In such cases, benefit may be derived from reframing the expectations in more direct and positive ways so that students and staff clearly know what is expected.

It appears that students and staff as a whole were provided the opportunity to have input into establishing school-wide behavioral expectations among all 22 intervention schools (Table 9). Although the response categories provided in the assessment were not precisely defined, S3 teams at half of the schools indicated a moderate level of student and staff input in the process, while for another seven (32%), students and staff provided input to a major extent. These examples describe how input was obtained:

Table 9. Extent to Which Students and Staff at S3 Intervention Schools Provided Input Into Establishing School-Wide Behavioral Norms/Expectations

	Number of schools	Percent
Not at all	0	0%
To a minor extent	4	18.2%
To a moderate extent	11	50.0%
To a major extent	7	31.8%
Total	22	100.0%

> The S3 team used the survey data from Spring 2011 to set norms. The norms [then] were agreed upon by a majority of the staff.

> We formed a student advisory group which had input [in establishing norms/expectations] as well as helped in creating posters and shirts.

> The S3 team discussed with students and staff what we expected, and as a group we established the [school slogan].

A combination of whole-school, classroom-based, and one-on-one approaches may be used to effectively teach and reinforce behavior expectations. S3 intervention schools appeared to tend toward more whole-school approaches (Table 10). All 22 schools indicated that whole-school assemblies were used, followed by morning announcements in 19 (86%) schools. Nineteen schools indicated that reteaching behavior expectations happens when correcting inappropriate behavior—a one-on-one interaction presumably occurring at the time of the behavior. Fewer than half of the schools indicated formal curricula or programs, staff-developed or online lesson plans, or skits or student-developed videos or messages were used to teach expectations.

Table 10. Approaches Used by S3 Intervention Schools to Teach Behavior Norms/Expectations to Students and Staff

	Number	Percent
Formal evidence-based curricula or program	7	31.8
Student developed videos or messages	5	22.7
Staff developed lesson plans	9	40.9
Online lesson plans	3	13.6
Role playing or skits	8	36.4
School assemblies	22	100.0
Morning announcements	19	86.4
Reteaching when correcting inappropriate behavior	19	86.4

Discussion

Implementation

Overall the 15 (of 22) intervention schools for which fidelity assessment data were available in both 2011 and 2012 appeared to have done well in implementing core activities that align with the exploration and installation stages of implementation. Moreover, *competency* and *organization* implementation drivers tended to be largely in play during the first 2 years of the project as school-based teams were established, school climate specialists (SCSs) provided training and developed coaching relationships with school teams, and data systems to support decisions were employed through core activities involving environmental scans of school conditions and SWOT analyses. The use of other relevant data sources (e.g., school climate survey data) was initiated and sustained over the 2 years to support school improvement purposes. Across most core activities—aligned with all stages of implementation—improvements were made, moving from being altogether missing or implemented with weak fidelity in 2011, to being implemented at weak to moderate fidelity in 2012.

Both school-based Safe and Supportive Schools (S3) teams and SCSs indicated marked improvements relative to the strategic steps of the West Virginia Model for Positive School Climate (WVMPSC) over the 2 years. SCSs tended to be more guarded in their assessments, however; for some core activities they indicated schools' implementation fidelity to be at lower levels than the school S3 teams rated themselves. This was not entirely unexpected because of the broader frame of reference against which SCSs may view consistency with the WVMPSC. There appeared to be a greater degree of disagreement between teams and SCSs in 2012 than in 2011. In 2012 statistically significant differences were found on seven WVMPSC core activities compared to only three in 2011, on two of which they differed in both years: (a) informing parents and community partners about the S3 initiative and securing their commitment and (b) building understanding of S3 behavioral norms among school staff. The first of these is a systemic challenge throughout the entire school system, whether involved in S3 or not. Although there are exceptions, it remains difficult to facilitate high levels of parent and community involvement in school initiatives.

The latter core activity is of critical concern (i.e., building understanding of S3 behavioral norms among school staff) because successful school climate improvement relies heavily on the awareness and understanding of expectations for appropriate behaviors, and execution of practices that reinforce those expectations in the day-to-day operations of the school. A related activity on which the two groups differed in 2012 was defining school-wide procedural expectations for addressing student behavior. That SCSs assessed these activities at lower levels of fidelity than the school teams points to the need for competency-building opportunities for school team members and their colleagues, and for SCSs to coach them along.

The other core activities that SCSs rated at statistically lower levels than did school S3 teams relate to the use of decision-support data systems. These activities included using assessment results to (a) identify factors contributing to school climate problems, (b) set priorities or plan activities, and (c) select appropriate interventions. Differences also were found on schools' efforts to review or analyze data on an ongoing basis to make project adjustments. As noted ear-

lier, it is not enough to simply identify problematic school climate issues. Achieving the best possible climate improvement also depends heavily on selecting and implementing interventions based on thorough assessments of factors contributing to those problematic issues. Increased attention to the exploration of these factors is an area where schools could reap substantial benefits from their efforts.

Leadership implementation drivers are not as explicitly described in the strategic steps of the WVMPSC as are competency and organization drivers. Two areas where SCSs provided limited data were the role and involvement of district S3 contacts and of school principals. SCSs reported that for most intervention schools, the district S3 contacts had at least some involvement in the S3 project at the school level, and for eight schools a fairly high level of involvement was noted. For eight other schools, however, district coordinators were reported to have had little involvement beyond serving as the contact for the grant. One could assume that high levels of involvement by the district contact would be beneficial to the implementation of the WVMPSC, but that assumption has not been validated. There could be good reasons for varying levels of involvement. In some cases, district contacts may be confident that schools have the capacity to carry out the grant with little assistance, while for other schools they believe the opposite may be true and they gauge their involvement accordingly. Nevertheless it is not clear from the limited findings in this study if district contact involvement has a positive or negative effect on schools' success.

In an examination of educational planning processes, Beach and Lindahl (2007) note that in modifying a school's climate and culture, school administrators can play a substantial role in clarifying and consistently modeling the beliefs and values embodied in any proposed changes in the school environment. They can create the conditions in which students and staff internalize new practices, such as the behavior expectations established through the WVMSPC. Although it is not clear the specific roles of school principals among S3 intervention schools, SCSs reported that in a large majority of schools, principals had been very or moderately involved in the S3 project, which bodes well for the project as a whole. There was a small number of schools where principals were reported to be largely uninvolved, and this may pose a substantial barrier.

School Climate

As a group, S3 intervention schools showed significant improvement with medium to large effect sizes in school climate as measured by the WV School Climate Index. Differences also were found for eight of the 20 indicators the index comprises. As noted in the methods section, the annual changes in the school climate index among intervention schools are gauged relative to ratings of nonintervention schools held constant at 2010-11 baseline levels. It will not be possible to determine if the improvements in the index scores observed in this study are genuine until data from nonintervention schools are collected again in the 2013-14 school year.

Based on survey data, however, there appears to be a fairly wide gulf between students and staff in their perceptions of school climate improvements. Students were much more likely to report that conditions stayed about the same compared to the previous year, whereas staff were much more likely to report conditions had gotten better.

Discrepancies between student and staff perceptions of school conditions are not unheard of. Waasdorp, Pas, O'Brennan, and Bradshaw (2011) found that although school staff were more likely than students to report having witnessed bullying in the school environment, they also were more likely than students to report feeling safe and a sense of belonging—both important constructs of school climate. Despite being unable to compare student and staff measures of school climate directly, Mitchell, Bradshaw, and Leaf (2010) reported no association between student and staff ratings of overall school climate, and that teachers' ratings of school climate may be more sensitive to classroom-level factors, such as disruptive behaviors, while students' perceptions may be more sensitive to school-level factors, such as student mobility, student-faculty ratio, and a change in principal. That staff and students were so far apart in their ratings of school climate improvement in the current study raises a question about what factors may be driving the perceptions of both groups. Moreover, once identified, can these factors be targeted to further enhance schools' efforts in school climate improvement?

School Defined Behavior Expectations

Establishing and reinforcing school-wide behavior norms or expectations is essential to the effective implementation of the WVMPSC. The norms and expectations provided by the S3 intervention schools were, for the most part, clearly and positively stated. Most schools (62%) also had established five or fewer norms and expectations, which is in alignment with the guidelines recommended under the School-wide Positive Behavior Intervention Supports framework (Algozzine, et al., 2010). It also appears that the intervention schools provided students and staff opportunities to contribute to establishing behavioral expectations and should be encouraged to continue to do so. Yet it is clear that in some schools, the established behavior expectations were too numerous, too wordy or unclear, unfriendly pronouncements of policy, or not mutually exclusive.

Intervention schools also tended to rely more heavily on whole school approaches such as assemblies and morning announcements—or one-on-one re-teaching at the time of behavior incidents. While these indeed are worthwhile and should be continued, schools may benefit from expanding their approaches to communicate behavior expectations.

Recommendations

1. Based on the list of behavior expectations provided by intervention schools, schools should direct attention to establishing or refining behavior expectations with the assistance of the school climate specialists (SCSs). Expectations should be five or fewer in number; 1-3 words in length; positively stated; comprehensive (apply to all students and staff, and all settings); and mutually exclusive. The findings from the fidelity assessment indicate that schools should place additional emphasis on efforts to build understanding of behavior expectation among school staff.
2. Schools also should consider expanding their approaches for communicating and teaching behaviors that align with their expectations. By articulating specifically what appropriate behaviors look like relative to the established behavior expectations, developing specific lesson plans to guide the process of teaching appropriate behaviors, and modeling appropriate behaviors throughout the school environment, they will enhance the degree to which expectations are integrated into the day-to-day school experience.
3. Essential to obtaining the best possible climate improvements is selecting and implementing interventions based on thorough assessments of factors contributing to problematic school climate issues. That SCSs assessed schools at lower levels of fidelity in this area than did school teams points to a need to redouble schools' efforts to explore these contributing factors and adjust their interventions accordingly.
4. The gap between students' and staffs' perceptions of school climate improvement suggests an opportunity to cultivate a deeper understanding of the school environment from the perspectives of these two groups. Identifying and leveraging factors driving the perceptions of both groups could provide direction for further efforts to improve school climate.

References

Algozzine, B., Horner, R. H., Sugai, G., Barrett, S., Dickey, S. R., Eber, L., Kincaid, D., Lewis, T. & Tobin, T. (2010). *Evaluation blueprint for school-wide positive behavior support*. Eugene, OR: National Technical Assistance Center on Positive Behavior Interventions and Support. Retrieved from http://www.pbis.org/evaluation/evaluation_blueprint.aspx

Beach, R. H., & Lindahl, R. A. (2007). The role of planning in the school improvement process. *Educational Planning, 16*(2), 19-43.

Fixsen, D. L., & Blase, K. A. (2008). Drivers framework. Chapel Hill, NC: The National Implementation Research Network, Frank Porter graham Child Development Institute, University of North Carolina. Retrieved from http://nirn.fpg.unc.edu/learn-implementation/implementation-drivers

Mitchell, M. M., Bradshaw, C. P., & Leaf, P. J. (2010). Student and teacher perceptions of school climate: A multilevel exploration of patterns of discrepancy. *Journal of School Health, 80*, 271-279.

National Center on Safe Supportive Learning Environments. (n.d.) Topics and research. *Safe Supportive Learning* (website). Washington, DC: U.S. Department of Education, author. Retrieved from http://safesupportiveschools.ed.gov/index.php?id=33

National Implementation Research Network (n.d.a). Implementation defined. *Learn implementation* (online publication). Chapel Hill: University of North Carolina, FPG Child Development Institute. Retrieved from http://nirn.fpg.unc.edu/learn-implementation/implementation-defined

National Implementation Research Network (n.d.b). Implementation stages. *Learn implementation* (online publication). Chapel Hill: University of North Carolina, FPG Child Development Institute. Retrieved from http://nirn.fpg.unc.edu/learn-implementation/implementation-stages

National School Climate Center (n.d.). School climate. New York: Author. Retrieved from www.schoolclimate.org/climate/

Waasdorp, T., Pas, E. T., O'Brennan, L. M., & Bradshaw, C. P. (2011). A multilevel perspective on the climate of bullying: Discrepancies among students, school staff, and parents. *Journal of School Violence, 10*(2), 115-132.

Whisman, S.A. (2012a). *The West Virginia School Climate Index: A measure of school engagement, safety, and environment*. Charleston: West Virginia Department of Education, Office of Research. Retrieved from http://wvde.state.wv.us/research/reports2012/WVSCIDevelopmentReport_2012.pdf

Whisman, S.A. (2012b). *The West Virginia School Climate Index: Validity and associations with academic outcome measures*. Charleston: West Virginia Department of Education, Office of Research. Retrieved from http://wvde.state.wv.us/research/reports2012/WVSCIValidityTestReport_2012.pdf

Appendix A. Strategic Steps of the WV Model for a Positive School Climate

Table 11. Strategic Steps and Core Activities of the WV Model for a Positive School Climate Cross-Walk With Evidence Based Implementation Stages and Drivers

Strategic step	Core activity	Implementation stage	Implementation driver category	Implementation driver(s)
Organizing	Establish an S3 team and train team members on project design and components of the Positive School Climate Model.	Exploration/ Installation	Competency	Selection, Training
	Establish communication strategies among RESA, LEA, and school-based S3 team leadership.	Installation	Leadership	Adaptive
	Establish ownership and commitment for the project implementation process.	Installation	Organization	Facilitative Administration
Assessment	Establish data collection schedules and procedures.	Exploration/ Installation	Organization	Decision Support Data System
	Conduct an environmental scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate.	Exploration	Organization	Decision Support Data System
	Conduct a SWOT analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project.	Exploration	Organization	Decision Support Data System
	Use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior.	Installation	Organization	Decision Support Data System
	Conduct comprehensive needs assessment with all relevant data (e.g., student surveys, student discipline data, DP-21, SWOT, etc.) to describe current conditions and define a desired school climate.	Installation	Organization	Decision Support Data System
	Prioritize project goals based on the district needs identified in the assessment process.	Installation	Leadership	Technical
Building support	Inform school-level professional and support staff about the S3 initiative and secure their commitment.	Installation	Organization	Systems Intervention
	Inform parents and community partners about the S3 initiative and secure their commitment.	Installation	Organization	Systems Intervention
	Build understanding of S3 behavioral norms among school-level professional and support staff.	Installation	Competency	Training
	Build understanding of S3 behavioral norms among parents and community partners.	Installation	Competency	Training
	Define school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner.	Installation	Organization	Systems Intervention

Table 11 continues on next page.

Planning and	Use comprehensive assessment results (e.g., the	Installation/	Organization	Decision Support

Table 11. Strategic Steps and Core Activities of the WV Model for a Positive School Climate Cross-Walk With Evidence Based Implementation Stages and Drivers

Strategic step	Core activity	Implementation stage	Implementation driver category	Implementation driver(s)
implementation	environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities.	Initial Implementation		Data System
	Use contributing factors identified in the assessment process to select appropriate interventions.	Initial Implementation	Organization	Decision Support Data System
	Establish clear plans to integrate selected interventions school-wide.	Initial Implementation	Organization	Decision Support Data System
	Build capacity and train staff and parent/ community partners to implement interventions with fidelity school-wide and in the community.	Initial Implementation	Competency	Training
	Implement project activities and selected interventions with fidelity school-wide.	Full Implementation	Organization	Systems Intervention
	Collaborate with families and community organizations to create or enhance asset building opportunities for students in school and community settings.	Full Implementation	Organization	Systems Intervention
	Collaborate with community agencies to create or enhance intervention and treatment referral systems.	Full Implementation	Organization	Systems Intervention
Monitoring and evaluation	Review or analyze data on an ongoing basis to make project adjustments.	Full Implementation	Organization	Decision Support Data System
	Establish plans and processes for ensuring long-term project continuation and sustainability.	Full Implementation	Organization	Systems Intervention

Appendix B. Fidelity Rating Scale for Core Activities of the WV Model for a Positive School Climate

Table 12. Fidelity Rating Scale for Core Activities Corresponding to the "Organizing" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school established an S3 team and trained team members on project design and components of the Positive School Climate Model?	1	Missing	No attempt has yet been made to establish the school-level S3 team or recruit members to serve.
	2	Weak Fidelity	Establishment of an S3 team and recruitment of members has begun. No training has yet taken place.
	3	Moderate Fidelity	S3 team has been established and organized, with most members recruited. Some members have been trained on the project design and components of the Positive School Climate Model.
	4	Strong Fidelity	S3 team has been established and organized, and recruitment has been successfully completed. All members have been trained on the project design and the components of the Positive School Climate Model.
To what extent has your school established communication strategies among RESA, LEA, and school-based S3 team leadership?	1	Missing	No communication strategies have yet been established among RESA, LEA, and school-based S3 team leadership.
	2	Weak Fidelity	Communication strategies have been established between some of the partners (i.e., RESA, LEA, and school-based S3 team leadership). Communication strategies are not yet defined and/or are infrequently used.
	3	Moderate Fidelity	Communication strategies have been established among RESA, LEA, and school-based S3 team leadership; are somewhat defined; and periodically used.
	4	Strong Fidelity	Communication strategies have been established among RESA, LEA, and school-based S3 team leadership; they are clearly defined, and frequently used.
To what extent has your school established ownership and commitment for the project implementation process?	1	Missing	The school leadership has not yet taken ownership of the project or committed to its implementation.
	2	Weak Fidelity	The school leadership is in the early stages of the implementation process and shows some signs of ownership and commitment to the project.
	3	Moderate Fidelity	The school has an S3 team that demonstrates a moderate level of ownership and commitment to the project implementation process.
	4	Strong Fidelity	The school-level S3 team exhibits strong ownership and commitment to the project implementation process.

Table 13. Fidelity Rating Scale for Core Activities Corresponding to the "Assessment" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school established data collection schedules and procedures?	1	Missing	No data collection schedules or procedures have been established.
	2	Weak Fidelity	A process to establish data collection schedules and procedures has been initiated, but is in its early stages.
	3	Moderate Fidelity	Data collection schedules and procedures have been drafted and are in the process of refinement.
	4	Strong Fidelity	Data collection schedules and procedures have been reviewed, further refined, and finalized.
To what extent has your school conducted an Environmental Scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate?	1	Missing	Planning for and implementation of an environmental scan have not begun.
	2	Weak Fidelity	Planning for an environmental scan has been completed, but no information has yet been collected.
	3	Moderate Fidelity	An environmental scan is underway and is producing potentially useful information for the planning process.
	4	Strong Fidelity	An environmental scan has been completed and all relevant information from the scan has been made available to the S3 team to use in its planning.
To what extent has your school conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project?	1	Missing	Planning for and implementation of a SWOT analysis have not begun.
	2	Weak Fidelity	Planning for a SWOT analysis has been completed, but no information has yet been collected.
	3	Moderate Fidelity	A SWOT analysis is underway and is producing potentially useful information for the planning process.
	4	Strong Fidelity	A SWOT analysis has been completed and all relevant information from the scan has been made available to the S3 team to use in its planning.
To what extent does the school use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior?	1	Missing	Behavior intervention or discipline referral forms, or other similar paper or electronic forms, have not been introduced.
	2	Weak Fidelity	Behavior intervention or discipline referral forms, or other similar paper or electronic forms, have been introduced but they are not yet being used.
	3	Moderate Fidelity	Behavior intervention or discipline referral forms, or other similar paper or electronic forms, are being used for data collection by some school staff and data are beginning to be used for assessment or planning purposes.
	4	Strong Fidelity	Behavior intervention or discipline referral forms, or other similar paper or electronic forms, are widely used and data are frequently or always used for assessment or planning purposes.

Table 13 continues on next page.

Table 13. Fidelity Rating Scale for Core Activities Corresponding to the "Assessment" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school conducted a comprehensive needs assessment with all relevant data (e.g., student surveys, student discipline data, DP-1, SWOT, etc.) to describe current conditions and define a desired school climate?	1	Missing	Planning for and implementation of a comprehensive needs assessment have not begun.
	2	Weak Fidelity	Planning for a comprehensive needs assessment has been completed, and relevant data are being gathered.
	3	Moderate Fidelity	Most relevant data have been gathered, and are being reviewed for adequacy in describing current conditions.
	4	Strong Fidelity	All relevant data have been gathered and reviewed, and the baseline assessment of the data is complete. The product of these activities is a comprehensive description of current conditions and the definition of a desired school climate.
To what extent has your school prioritized project goals based on the district needs identified in the assessment process?	1	Missing	Prioritization of project goals based on district needs has not begun.
	2	Weak Fidelity	Prioritization of project goals based on district needs is in early stages.
	3	Moderate Fidelity	Prioritization of project goals based on district needs is well underway.
	4	Strong Fidelity	Prioritization of project goals based on district needs has been completed.

Table 14. Fidelity Rating Scale for Core Activities Corresponding to the "Building Support" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school informed school-level professional and support staff about the S3 initiative and secured their commitment?	1	Missing	Planning for S3 initiative training for school-level professional and support staff has not begun.
	2	Weak Fidelity	A plan is in place for training school-level professional and support staff on the S3 project, and is in the early stages of implementation.
	3	Moderate Fidelity	Some school-level professional and support staff have received training on the S3 project; some demonstrate commitment to the S3 project.
	4	Strong Fidelity	All school-level professional and support staff have received training on the S3 project. Overall, there is a high level of commitment to the S3 project.
To what extent has your school informed parents and community partners about the S3 initiative and secured their commitment?	1	Missing	Planning for activities to inform parents and community partners about the S3 initiative have not begun.
	2	Weak Fidelity	A plan is in place for informing parents and community partners about the S3 initiative, and implementation has begun.
	3	Moderate Fidelity	Some parents and community partners have received information about the S3 project; some demonstrate commitment to the S3 project.
	4	Strong Fidelity	Many parents and community partners have received information about the S3 project; many demonstrate a high level of commitment to the S3 project.
To what extent has your school built understanding of S3 behavioral norms among school-level professional and support staff?	1	Missing	Planning for S3 behavioral norm training for school-level professional and support staff has not begun.
	2	Weak Fidelity	A plan is in place for building understanding about the S3 behavioral norms among school-level professional and support staff, and implementation is in early stages. Low levels of awareness exist among staff.
	3	Moderate Fidelity	Some efforts have been made to build awareness of S3 behavioral norms among school-level professional and support staff. Moderate levels of awareness exist among staff.
	4	Strong Fidelity	Numerous efforts have been made to build awareness of S3 behavioral norms among school-level professional and support staff. High levels of awareness exist among staff.
To what extent has your school built understanding of S3 behavioral norms among parents and community partners?	1	Missing	Planning for activities to build understanding about S3 behavioral norms among parents and community partners has not begun.
	2	Weak Fidelity	A plan is in place for building understanding about S3 behavioral norms among parents and community partners, and implementation has begun
	3	Moderate Fidelity	Some activities have taken place to build understanding of S3 behavioral norms among parents and community partners. Moderate levels of awareness exist among this population.
	4	Strong Fidelity	Numerous efforts have been made to build understanding of S3 behavioral norms among parents and community partners. High levels of awareness exist among this population.

Table 14 continues on next page.

Table 14. Fidelity Rating Scale for Core Activities Corresponding to the "Building Support" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school defined school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner?	1	Missing	Procedural expectations for addressing student behavior in a consistent and deliberate manner have not been defined.
	2	Weak Fidelity	Work has begun on defining procedural expectations, but definitions are not yet sufficiently clear, complete, or always suitable. Few staff have adopted the procedural expectations.
	3	Moderate Fidelity	Procedural expectations have been defined and have gained some clarity, but some misunderstanding and confusions about them continues to exist. Some staff have adopted them.
	4	Strong Fidelity	Procedural expectations for addressing student behavior in a consistent and deliberate manner have been clearly defined. A common understanding and interpretation of them is shared among all stakeholders. Procedural expectations have been adopted school-w

Table 15. Fidelity Rating Scale for Core Activities Corresponding to the "Planning" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
To what extent has your school used comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities?	1	Missing	Assessment results are not used to identify factors contributing to school climate problems, set priorities, or plan S3 activities.
	2	Weak Fidelity	Assessment results are used occasionally, but not as effectively as they could be to identify factors contributing to school climate problems, set priorities, or plan S3 activities.
	3	Moderate Fidelity	Assessment results are used often, but not as effectively as they could be to identify factors contributing to school climate problems, set priorities, or plan S3 activities.
	4	Strong Fidelity	Assessment results are routinely used to identify factors contributing to school climate problems, and to logically set priorities, select interventions, or plan other S3 activities.
To what extent has your school used contributing factors identified in the assessment process to select appropriate interventions?	1	Missing	No interventions have been identified.
	2	Weak Fidelity	Interventions are identified, but it is not clear how they address the factors contributing to the targeted issues.
	3	Moderate Fidelity	Interventions are identified with some alignment to identified contributing factors or targeted problem, but there is evidence for selection of other interventions.
	4	Strong Fidelity	Interventions are identified that align well with the problem and contributing factors.
To what extent has your school established clear plans to integrate selected interventions school-wide?	1	Missing	No plans have been established.
	2	Weak Fidelity	Some plans have been established to integrate selected interventions school-wide, but they are unclear or not widely understood or followed.
	3	Moderate Fidelity	Clear plans have been established to integrate selected interventions school-wide. Many staff and parent/community partners understand and follow the plans.
	4	Strong Fidelity	Clear plans have been established to integrate selected interventions school-wide. Plans are closely followed by all staff and parent/community partners.
To what extent has your school built capacity and trained staff and parent/community partners to implement interventions with fidelity school-wide and in the community?	1	Missing	No efforts have been undertaken to train or build the capacity of staff and parent/community partners to implement interventions.
	2	Weak Fidelity	Some training or other effort has been undertaken to build staff and parent/community partner capacity to implement interventions, but they have been limited and few have participated.
	3	Moderate Fidelity	Most staff and parent/community partners have been trained and have the capacity to implement identified interventions school-wide or in the community with fidelity.
	4	Strong Fidelity	All staff and parent/community partners have been trained and have the capacity to implement identified interventions school-wide or in the community with fidelity.

Table 15 continues on next page.

To what extent has your	1	Missing	No implementation has taken place.

Table 15. Fidelity Rating Scale for Core Activities Corresponding to the "Planning" Strategic Step of the WV Model for a Positive School Climate

Core activity	Rating	Fidelity level	Description
school implemented project activities and selected interventions with fidelity school-wide?	2	Weak Fidelity	Project activities and selected interventions have been implemented, but not on a school-wide basis and/or there is evidence of low fidelity.
	3	Moderate Fidelity	Project activities and selected interventions have been implemented school-wide; some evidence exists that fidelity may be compromised.
	4	Strong Fidelity	Project activities and selected interventions have been implemented school-wide with fidelity.
To what extent has your school collaborated with families and community organizations to create or enhance asset building opportunities for students in school and community settings?	1	Missing	There is no collaboration with families and community organizations.
	2	Weak Fidelity	Collaboration with families and community organizations occurs but is weak or infrequent, or occurs in a limited number of school and community settings.
	3	Moderate Fidelity	Collaboration with families and community organizations occurs, but could be expanded or strengthened in some school and community settings.
	4	Strong Fidelity	High levels of collaboration with families and community organizations occurs in most or all school and community settings.
To what extent has your school collaborated with community agencies to create or enhance intervention and treatment referral systems?	1	Missing	There is no collaboration with community agencies.
	2	Weak Fidelity	A limited level of collaboration occurs with community agencies to create or enhance intervention and treatment referral systems.
	3	Moderate Fidelity	A moderate level of collaboration occurs with community agencies to create or enhance intervention and treatment referral systems.
	4	Strong Fidelity	A high level of collaboration occurs with community agencies to create or enhance intervention and treatment referral systems.

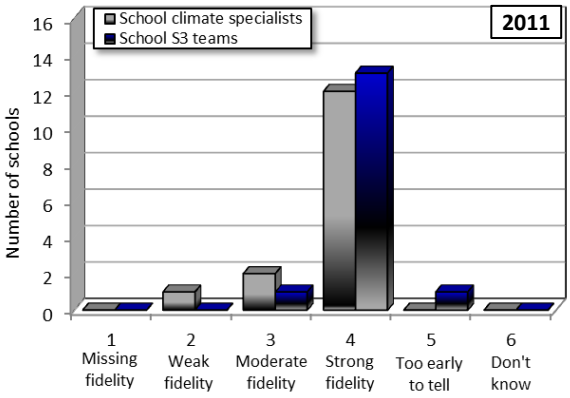
Table 16. Fidelity Rating Scale for Core Activities Corresponding to the "Monitoring and Evaluation" Strategic Step of the WV Model for a Positive School Climate

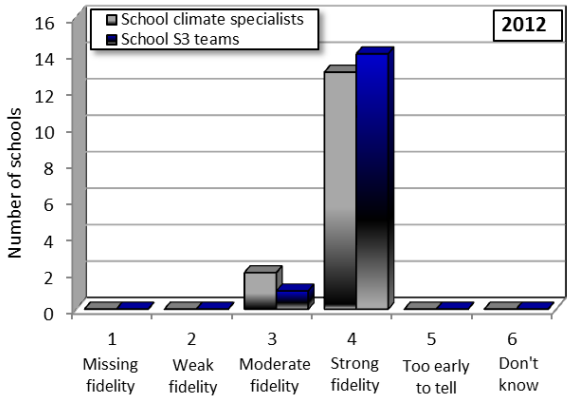
Core activity	Rating	Fidelity level	Description
To what extent does your school review or analyze data on an ongoing basis to make project adjustments?	1	Missing	No review or analysis of data to make project adjustments has occurred.
	2	Weak Fidelity	Review or analysis of data to make project adjustment has been initiated, but is in its early stages. No project adjustments have been made based on data.
	3	Moderate Fidelity	Review or analysis of data has been initiated to make project adjustments, but is done infrequently or could benefit from deeper exploration or reflection.
	4	Strong Fidelity	Review or analysis of data is done on a frequent and ongoing basis to monitor progress. Decisions about project adjustments are based directly on the data review.
To what extent has your school established plans and processes for ensuring long-term project continuation and sustainability?	1	Missing	There has been no discussion about long-term project continuation or to develop a plan for sustaining the strategies and outcomes after funding has been depleted.
	2	Weak Fidelity	Discussions about long term project continuation and sustainability have been initiated, but are limited in scope, and do not include specific action steps for developing a sustainability plan.
	3	Moderate Fidelity	Discussions about long term project continuation and sustainability have occurred, but include only some action steps for developing a sustainability plan, or steps may be infeasible or impractical to carry out.
	4	Strong Fidelity	Discussions have produced a well-formulated plan about project continuation and sustainability that articulates specific, doable action steps for carrying out a sustainability plan.

Appendix C. School-Based S3 Team and School Climate Specialist Fidelity Assessment Ratings: 2011-2012

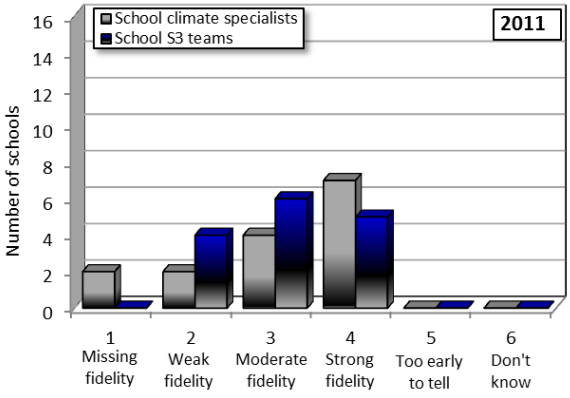
Organizing for the S3 Initiative

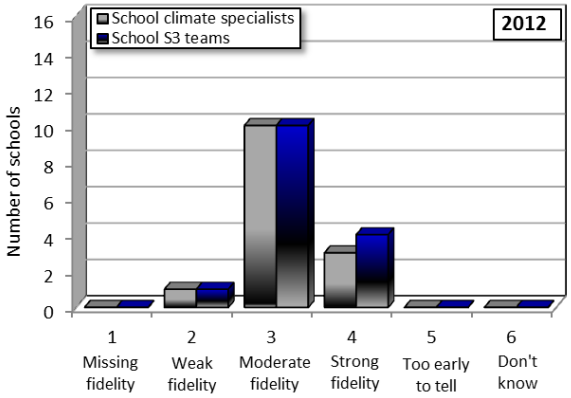
To what extent has the school established an S3 team and trained team members on project design and components of the Positive School Climate Model?



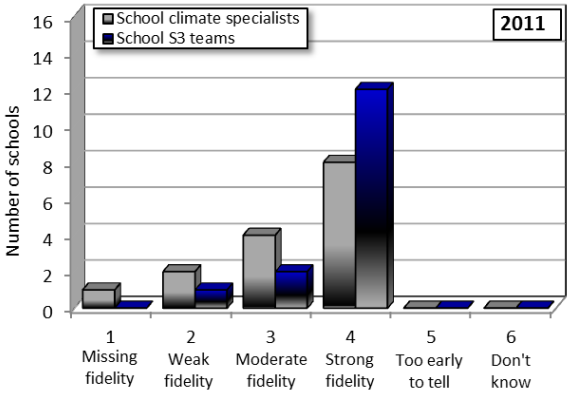


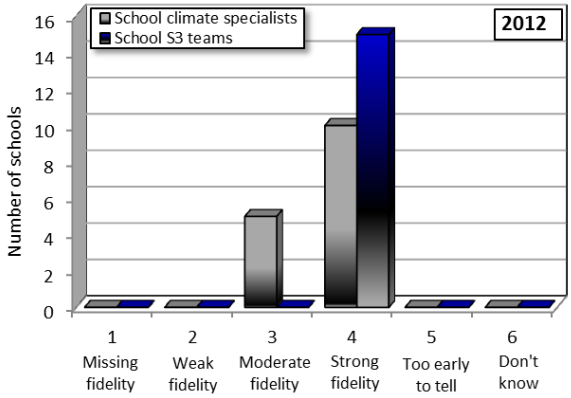
To what extent has the school established communication strategies among RESA, LEA, and school-based S3 team leadership?





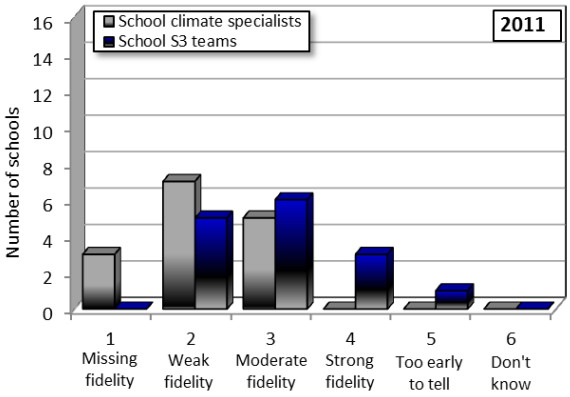
To what extent has the school established ownership and commitment for the project implementation process?

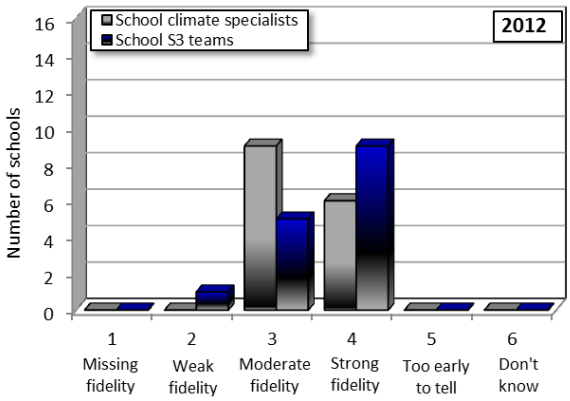




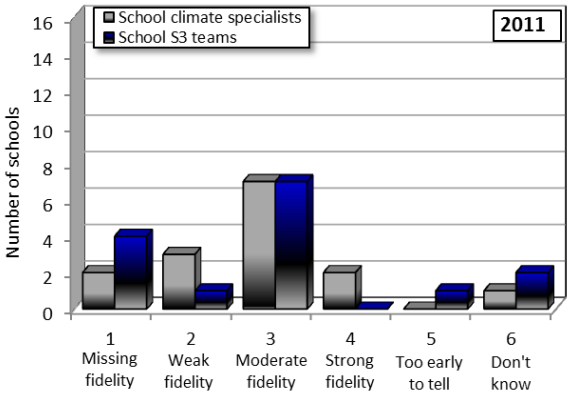
Needs Assessment Process

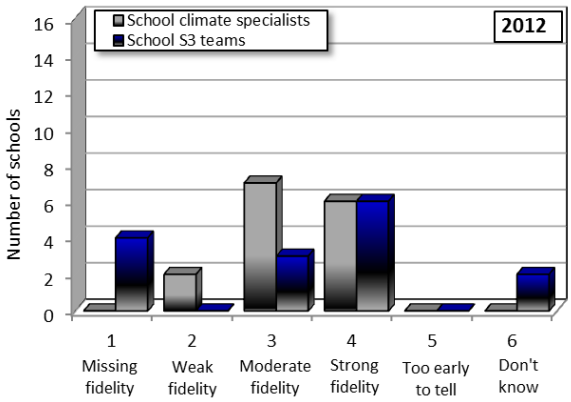
To what extent has the school established data collection schedules and procedures?



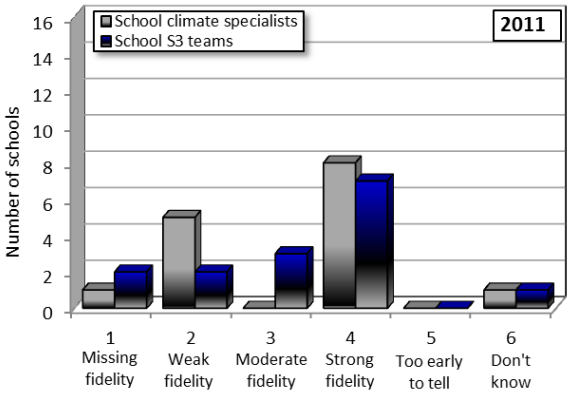


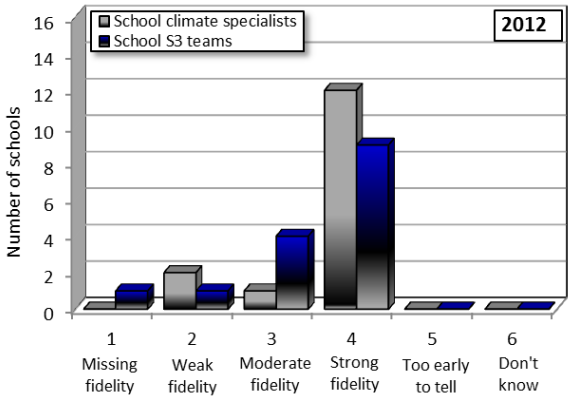
To what extent has the school conducted an Environmental Scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate?



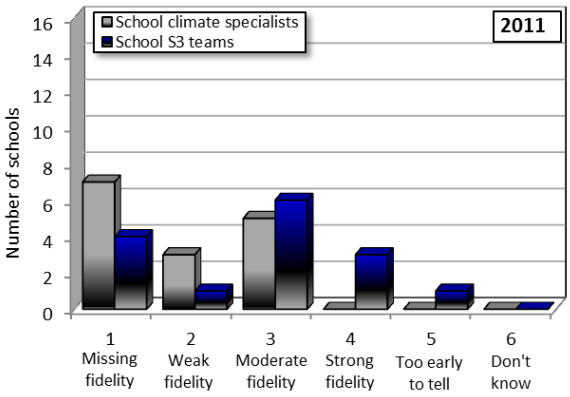


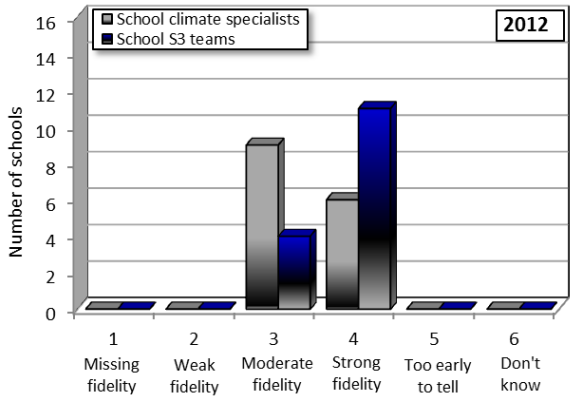
To what extent has the school conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project?



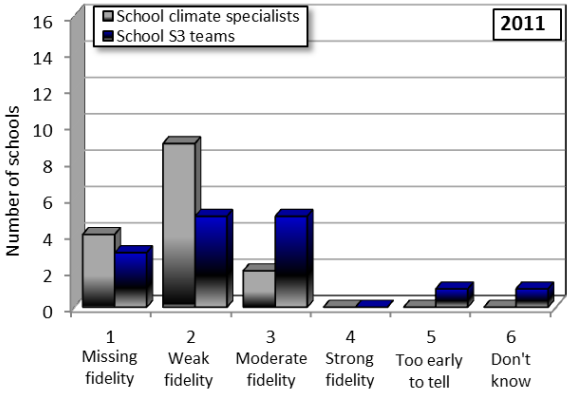


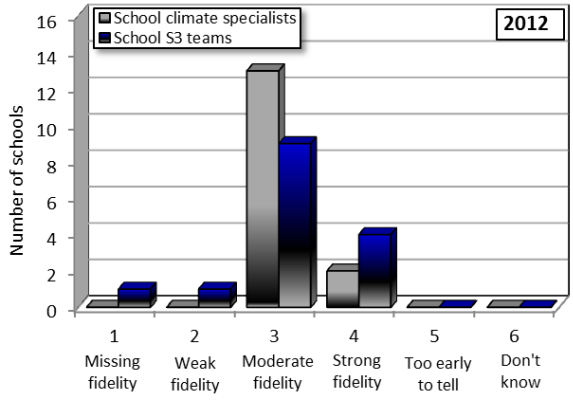
To what extent does the school use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms for early detection, identification, and documentation of inappropriate behaviors?



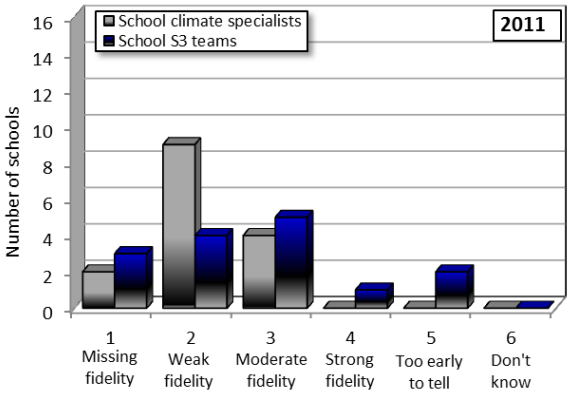


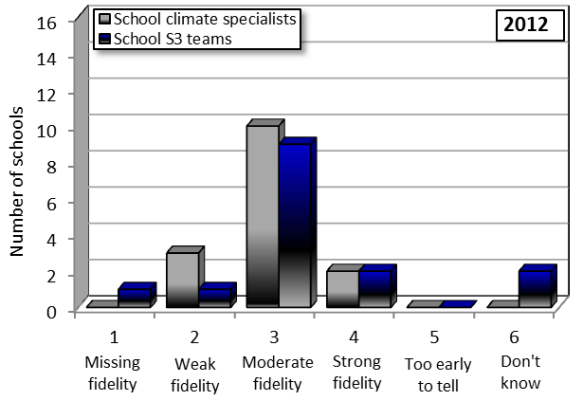
To what extent has the school conducted a comprehensive needs assessment with all relevant data (e.g., student surveys, student discipline data, DP-21, SWOT, BIFs, etc.) to describe current conditions and define a desired school climate?





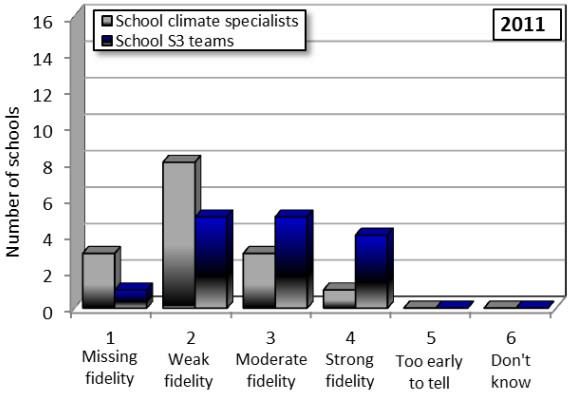
To what extent has the school prioritized project goals based on the district needs identified in the assessment process?

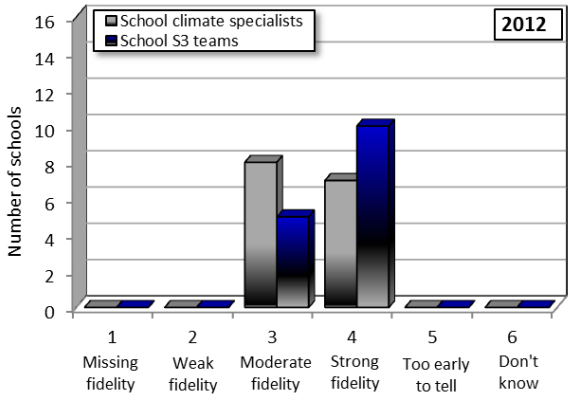




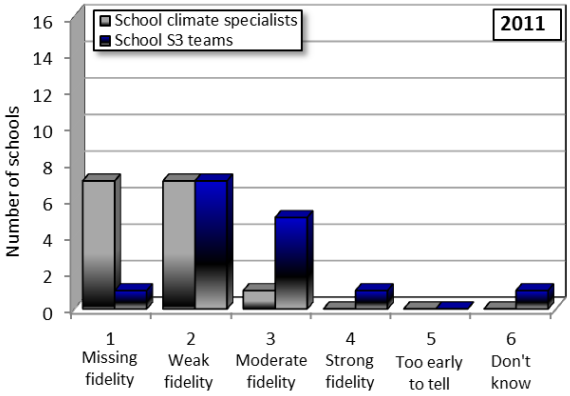
Building Support for the S3 Initiative

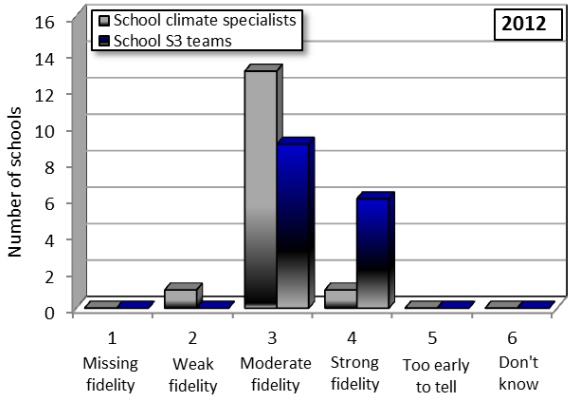
To what extent has the school informed school-level professional and support staff about the S3 initiative and secured their commitment?



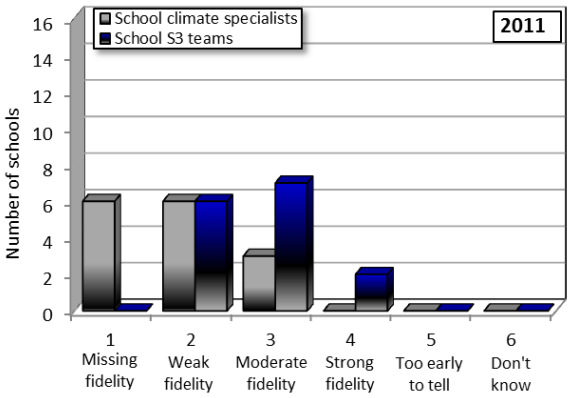


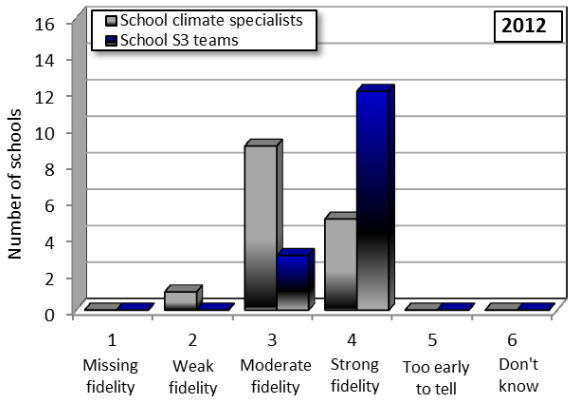
To what extent has the school informed parents and community partners about the S3 initiative and secured their commitment?



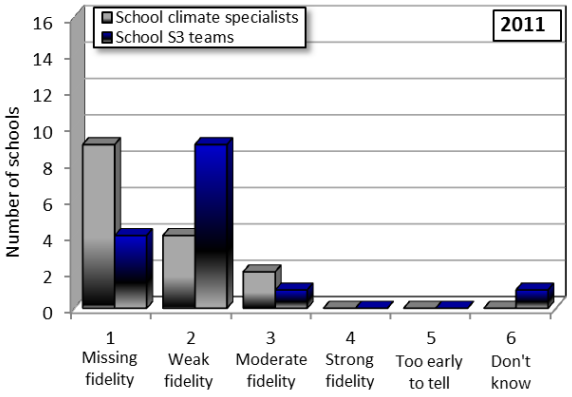


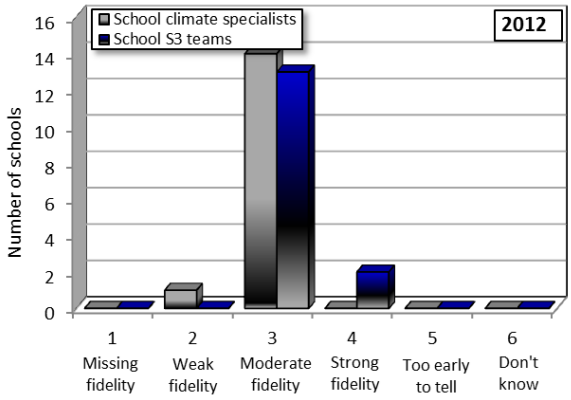
To what extent has the school built understanding of S3 behavioral norms among school-level professional and support staff?



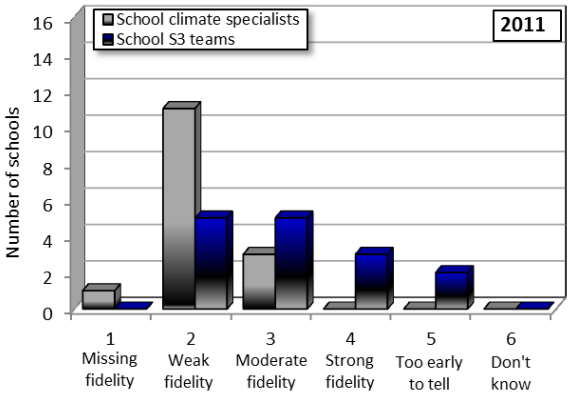


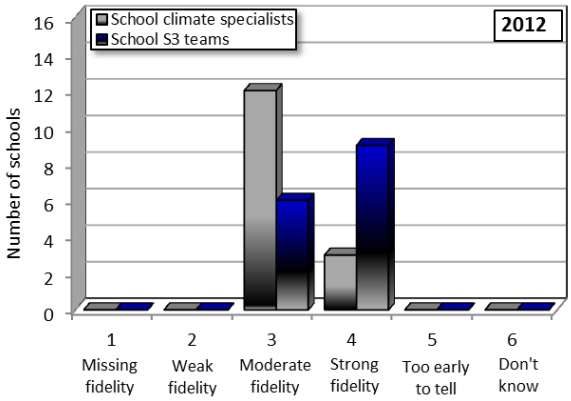
To what extent has the school built understanding of S3 behavioral norms among parents and community partners?





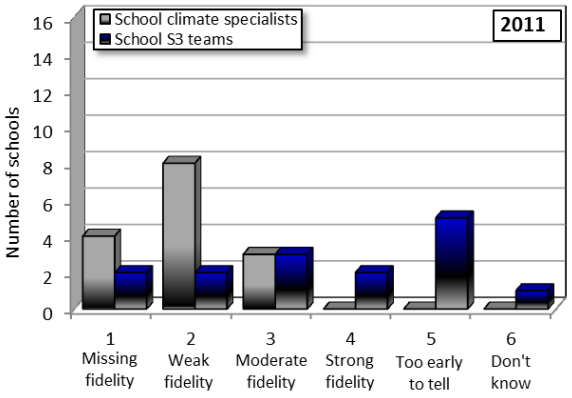
To what extent has the school defined school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner?

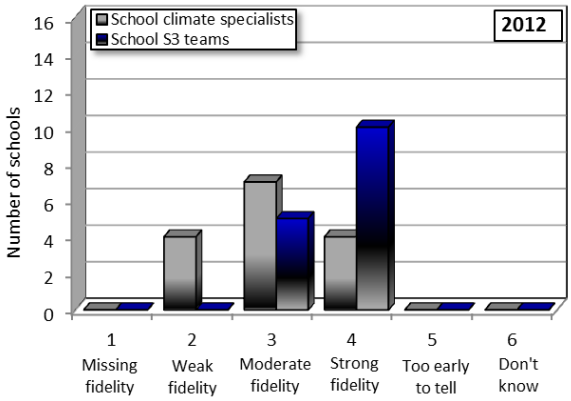




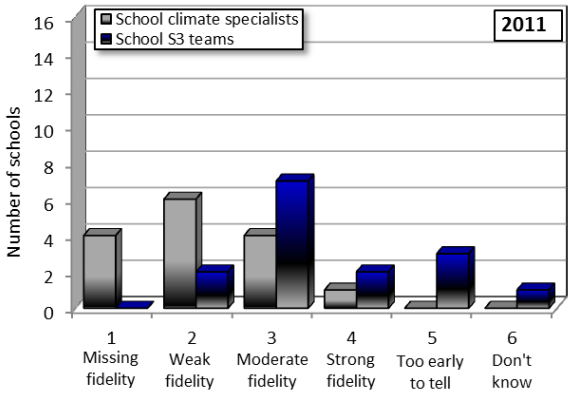
Systematic Planning

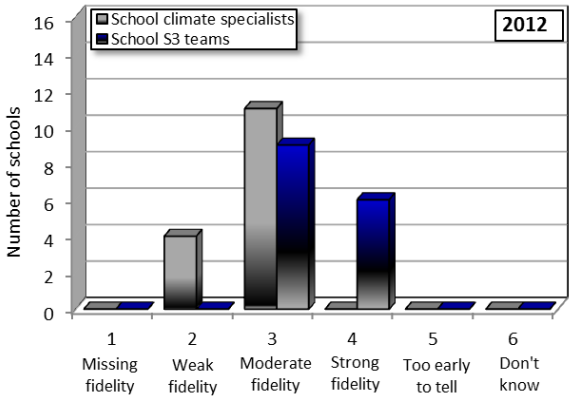
To what extent has the school used comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities?



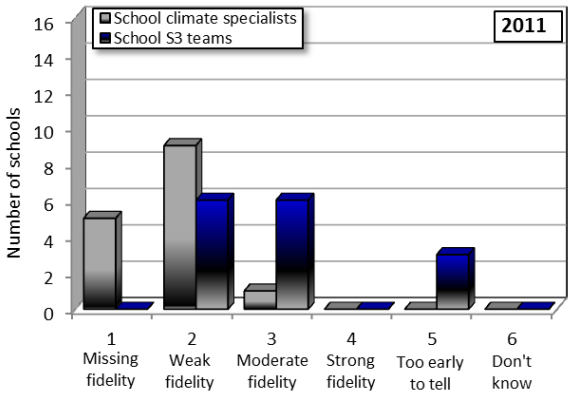


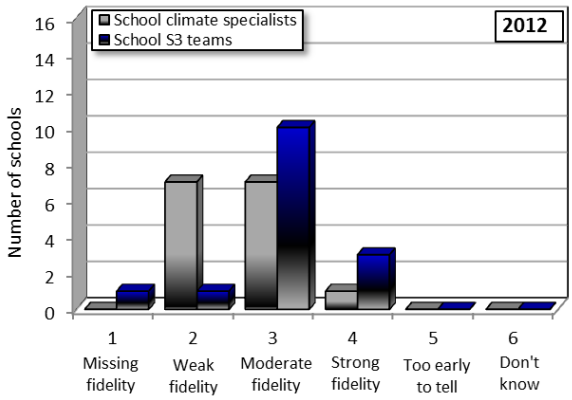
To what extent has the school used contributing factors identified in the assessment process to select appropriate interventions?



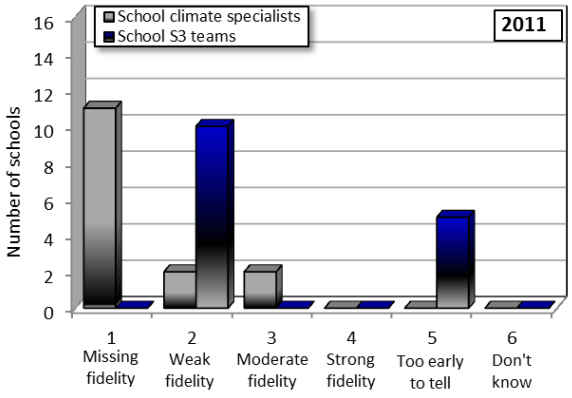


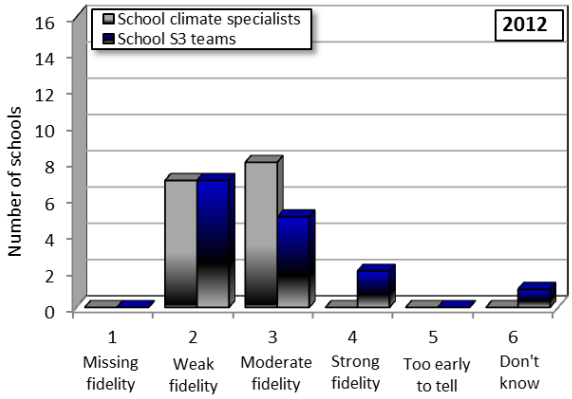
To what extent has the school established clear plans to integrate selected interventions school-wide?



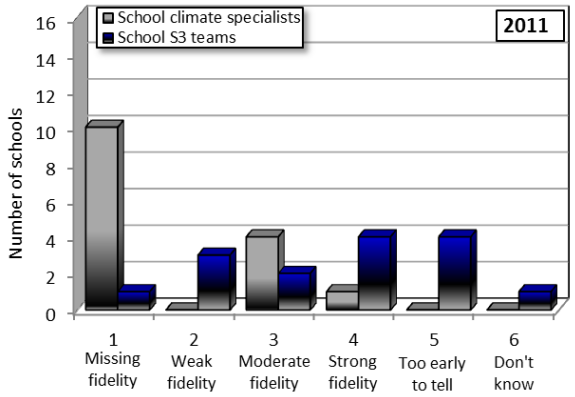


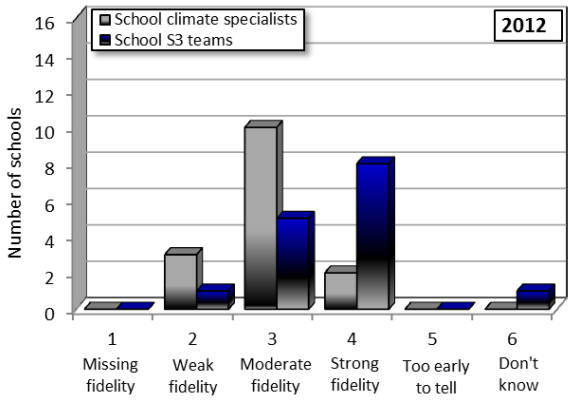
To what extent has the school built capacity and trained staff and parent/community partners to implement interventions with fidelity school-wide and in the community?



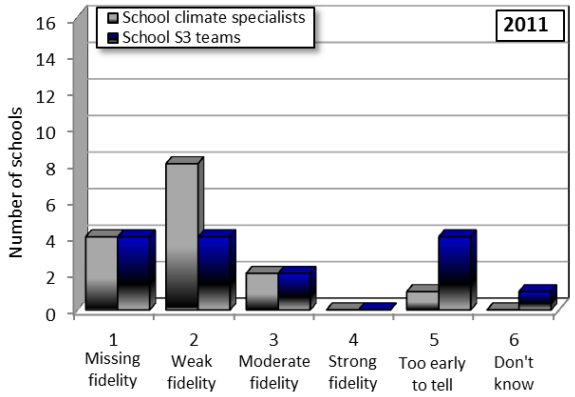


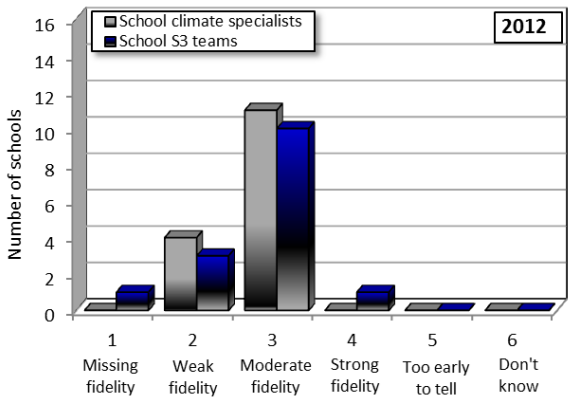
To what extent has the school implemented project activities and selected interventions with fidelity school-wide?



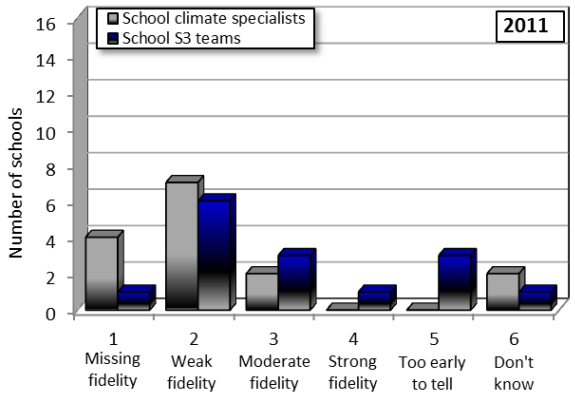


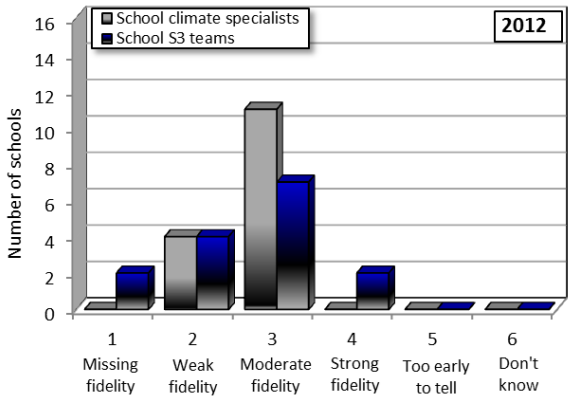
To what extent has the school collaborated with families and community organizations to create or enhance asset building opportunities for students in school and community settings?





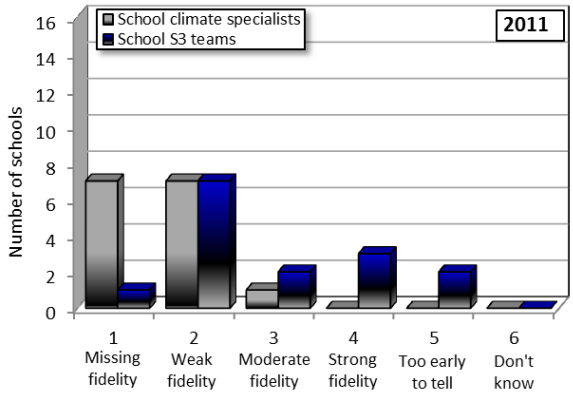
To what extent has the school collaborated with community agencies to create or enhance intervention and treatment referral systems?

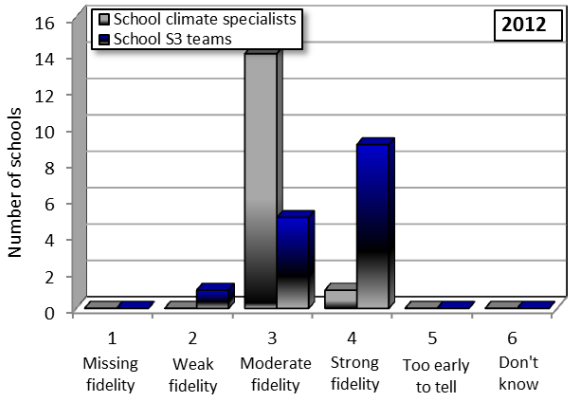




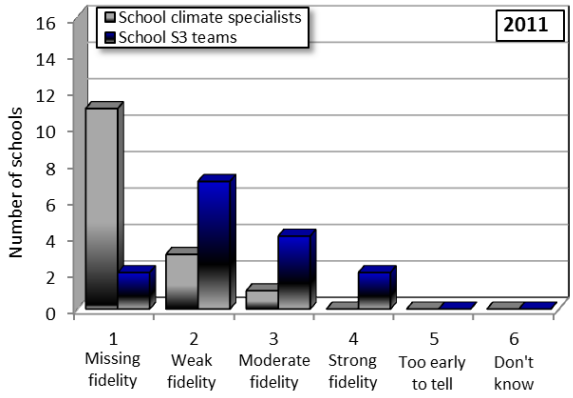
Evaluation and Monitoring

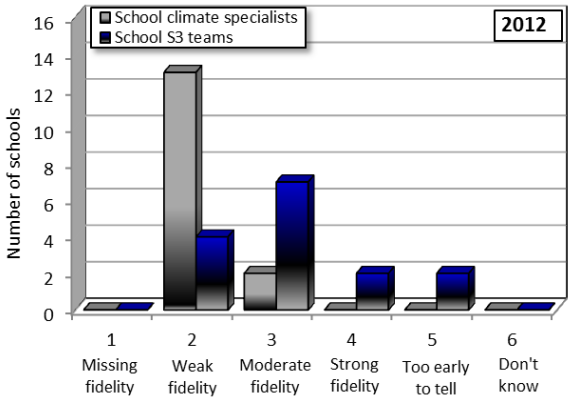
To what extent does the school review or analyze data on an ongoing basis to make project adjustments?





To what extent has the school established plans and processes for ensuring long-term project continuation and sustainability?





Appendix D. S3 Team and School Climate Specialist Fidelity Assessment Ratings, 2011 to 2012

Table 17. Wilcoxon Signed Ranks Test of S3-Team Implementation Fidelity Rating Improvement Between 2011 and 2012

Core activities	Median 2011	Median 2012	*z*	*p*
Establish an S3 team and train team members on project design and components of the Positive School Climate Model.	4	4	-0.82	0.414
Establish communication strategies among RESA, LEA, and school-based S3 team leadership.	3	3	-0.63	0.527
Establish ownership and commitment for the project implementation process.	4	4	-1.63	0.102
Establish data collection schedules and procedures.	3	4	-2.80	**0.005**
Conduct an environmental scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate.	2	3	-1.39	0.164
Conduct a SWOT analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project.	3	4	-1.27	0.205
Use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior?	3	4	-2.98	**0.003**
Conduct comprehensive needs assessment with all relevant data to describe current conditions and define a desired school climate.	2	3	-2.72	**0.006**
Prioritize project goals based on the district needs identified in the assessment process.	2	3	-1.54	0.125
Inform school-level professional and support staff about the S3 initiative and secure their commitment.	3	4	-2.74	**0.006**
Inform parents and community partners about the S3 initiative and secure their commitment.	2	3	-2.81	**0.005**
Build understanding of S3 behavioral norms among school-level professional and support staff.	3	4	-3.18	**0.001**
Build understanding of S3 behavioral norms among parents and community partners.	2	3	-3.38	**0.001**
Define school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner.	3	4	-2.94	**0.003**
Use comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities.	1	4	-3.10	**0.002**
Use contributing factors identified in the assessment process to select appropriate interventions.	3	3	-2.54	**0.011**
Establish clear plans to integrate selected interventions school-wide.	2	3	-2.17	**0.030**
Build capacity and train staff and parent/community partners to implement interventions with fidelity school-wide and in the community.	2	2	-2.54	**0.011**
Implement project activities and selected interventions with fidelity school-wide.	2	4	-2.33	**0.020**
Collaborate with families and community organizations to create or enhance asset building opportunities for students in school and community settings.	1	3	-2.77	**0.006**
Collaborate with community agencies to create or enhance intervention and treatment referral systems.	2	3	-2.22	**0.027**
Review or analyze data on an ongoing basis to make project adjustments.	2	4	-2.87	**0.004**
Establish plans and processes for ensuring long-term project continuation and sustainability.	2	3	-0.14	0.891
Fidelity Rating on a 4-point scale: 1 – Missing; 2 = Weak Fidelity; 3 = Moderate Fidelity; 4 = Strong Fidelity				

Table 18. Wilcoxon Signed Ranks Test of School Climate Specialist Implementation Fidelity Rating Improvement Between 2011 and 2012

Core activities	Median 2011	Median 2012	*z*	*p*
Establish an S3 team and train team members on project design and components of the Positive School Climate Model.	4	4	-0.82	0.414
Establish communication strategies among RESA, LEA, and school-based S3 team leadership.	3	3	-0.43	0.666
Establish ownership and commitment for the project implementation process.	4	4	-1.38	0.167
Establish data collection schedules and procedures.	2	3	-3.13	**0.002**
Conduct an environmental scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate.	3	3	-2.23	**0.026**
Conduct a SWOT analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project.	4	4	-2.01	**0.044**
Use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior?	2	3	-2.99	**0.003**
Conduct comprehensive needs assessment with all relevant data to describe current conditions and define a desired school climate.	2	3	-3.27	**0.001**
Prioritize project goals based on the district needs identified in the assessment process.	2	3	-2.76	**0.006**
Inform school-level professional and support staff about the S3 initiative and secure their commitment.	2	3	-2.96	**0.003**
Inform parents and community partners about the S3 initiative and secure their commitment.	2	3	-3.39	**0.001**
Build understanding of S3 behavioral norms among school-level professional and support staff.	2	3	-3.24	**0.001**
Build understanding of S3 behavioral norms among parents and community partners.	1	3	-3.22	**0.001**
Define school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner.	2	3	-3.36	**0.001**
Use comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities.	2	3	-2.82	**0.005**
Use contributing factors identified in the assessment process to select appropriate interventions.	2	3	-1.98	**0.048**
Establish clear plans to integrate selected interventions school-wide.	2	3	-2.60	**0.009**
Build capacity and train staff and parent/community partners to implement interventions with fidelity school-wide and in the community.	1	3	-2.91	**0.004**
Implement project activities and selected interventions with fidelity school-wide.	1	3	-2.84	**0.004**
Collaborate with families and community organizations to create or enhance asset building opportunities for students in school and community settings.	2	3	-3.07	**0.002**
Collaborate with community agencies to create or enhance intervention and treatment referral systems.	2	3	-3.31	**0.001**
Review or analyze data on an ongoing basis to make project adjustments.	2	3	-3.37	**0.001**
Establish plans and processes for ensuring long-term project continuation and sustainability.	1	2	-3.21	**0.001**
Fidelity Rating on a 4-point scale: 1 – Missing; 2 = Weak Fidelity; 3 = Moderate Fidelity; 4 = Strong Fidelity				

Appendix E. Comparison of S3 Team and School Climate Specialist Fidelity Assessments Ratings, 2011 and 2012

Table 19. Mann-Whitney U Test for S3 Team and School Climate Specialist Implementation Fidelity Rating Differences in 2011

Core activity	*U*	*z*	*p*
Establish an S3 team and train team members on project design and components of the Positive School Climate Model.	106.0	-0.42	0.678
Establish communication strategies among RESA, LEA, and school-based S3 team leadership.	105.5	-0.31	0.758
Establish ownership and commitment for the project implementation process.	81.0	-1.57	0.117
Establish data collection schedules and procedures.	72.5	-1.76	0.078
Conduct an environmental scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate.	80.5	-1.41	0.159
Conduct a SWOT analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project.	110.5	-0.09	0.929
Use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior?	82.5	-1.31	0.189
Conduct comprehensive needs assessment with all relevant data to describe current conditions and define a desired school climate.	106.5	-0.27	0.790
Prioritize project goals based on the district needs identified in the assessment process.	109.0	-0.15	0.878
Inform school-level professional and support staff about the S3 initiative and secure their commitment.	68.0	-1.95	0.051
Inform parents and community partners about the S3 initiative and secure their commitment.	60.5	-2.31	**0.021**
Build understanding of S3 behavioral norms among school-level professional and support staff.	46.5	-2.90	**0.004**
Build understanding of S3 behavioral norms among parents and community partners.	94.0	-0.84	0.402
Define school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner.	80.0	-1.48	0.139
Use comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities.	90.5	-0.94	0.347
Use contributing factors identified in the assessment process to select appropriate interventions.	98.0	-0.62	0.532
Establish clear plans to integrate selected interventions school-wide.	81.0	-1.41	0.158
Build capacity and train staff and parent/community partners to implement interventions with fidelity school-wide and in the community.	105.0	-0.33	0.741
Implement project activities and selected interventions with fidelity school-wide.	108.0	-0.19	0.847
Collaborate with families and community organizations to create or enhance asset building opportunities for students in school and community settings.	78.5	-1.48	0.139
Collaborate with community agencies to create or enhance intervention and treatment referral systems.	103.0	-0.41	0.678
Review or analyze data on an ongoing basis to make project adjustments.	74.0	-1.70	0.088
Establish plans and processes for ensuring long-term project continuation and sustainability.	38.5	-3.28	**0.001**

Table 20. Mann-Whitney U Test for S3 Team and School Climate Specialist Implementation Fidelity Rating Differences in 2012

Core activity	*U*	*z*	*p*
Establish an S3 team and train team members on project design and components of the Positive School Climate Model.	105.0	-0.60	0.550
Establish communication strategies among RESA, LEA, and school-based S3 team leadership.	99.5	-0.65	0.517
Establish ownership and commitment for the project implementation process.	75.0	-2.41	**0.016**
Establish data collection schedules and procedures.	94.5	-0.85	0.396
Conduct an environmental scan to describe events, trends, and relationships in the school's internal and external environment to assist in planning for the desired school climate.	88.5	-1.05	0.293
Conduct a SWOT analysis to examine the school's internal strengths, weaknesses, environments, opportunities, and threats relative to the S3 project.	92.0	-1.05	0.292
Use data collected from behavior intervention or discipline referral forms, or other similar paper or electronic forms, for early detection, identification, and documentation of inappropriate behavior?	75.0	-1.81	0.070
Conduct comprehensive needs assessment with all relevant data to describe current conditions and define a desired school climate.	110.5	-0.11	0.915
Prioritize project goals based on the district needs identified in the assessment process.	101.5	-0.53	0.596
Inform school-level professional and support staff about the S3 initiative and secure their commitment.	90.0	-1.09	0.277
Inform parents and community partners about the S3 initiative and secure their commitment.	70.5	-2.26	**0.024**
Build understanding of S3 behavioral norms among school-level professional and support staff.	58.5	-2.58	**0.010**
Build understanding of S3 behavioral norms among parents and community partners.	91.0	-1.71	0.087
Define school-wide procedural expectations for addressing student behavior in a consistent and deliberate manner.	67.5	-2.20	**0.028**
Use comprehensive assessment results (e.g., the environmental scan, student surveys, etc.) to identify factors contributing to school climate problems, set priorities, or plan S3 activities.	57.5	-2.50	**0.012**
Use contributing factors identified in the assessment process to select appropriate interventions.	49.5	-3.14	**0.002**
Establish clear plans to integrate selected interventions school-wide.	73.0	-1.83	0.067
Build capacity and train staff and parent/community partners to implement interventions with fidelity school-wide and in the community.	109.5	-0.14	0.891
Implement project activities and selected interventions with fidelity school-wide.	71.5	-1.86	0.063
Collaborate with families and community organizations to create or enhance asset building opportunities for students in school and community settings.	109.0	-0.18	0.857
Collaborate with community agencies to create or enhance intervention and treatment referral systems.	104.5	-0.38	0.704
Review or analyze data on an ongoing basis to make project adjustments.	59.5	-2.61	**0.009**
Establish plans and processes for ensuring long-term project continuation and sustainability.	71.0	-1.94	0.053

Appendix F. Chi Square Analysis of Student and Staff Perceptions of School Climate Change

Table 21. Student Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent students	Percent expected value	χ^2	*df*	*p*
Relationships among students	A Little or A Lot Better	45.3 [a]	33.3	101.8	2	0.00
	Stayed About the Same	43.7 [a]	33.3			
	A Little or A Lot Worse	11.1 [a]	33.3			
Relationships among students and staff	A Little or A Lot Better	37.6	33.3	96.8	2	0.00
	Stayed About the Same	50.4 [a]	33.3			
	A Little or A Lot Worse	12.1 [a]	33.3			
Respect for racial, ethnic, or cultural diversity	A Little or A Lot Better	32.4	33.3	158.3	2	0.00
	Stayed About the Same	59.4 [a]	33.3			
	A Little or A Lot Worse	8.2 [a]	33.3			
Meaningful opportunities for participation in school	A Little or A Lot Better	40.2 [a]	33.3	132.9	2	0.00
	Stayed About the Same	51.2 [a]	33.3			
	A Little or A Lot Worse	8.7 [a]	33.3			
Bullying at school	A Little or A Lot Better	35.8	33.3	62.4	2	0.00
	Stayed About the Same	48.1 [a]	33.3			
	A Little or A Lot Worse	16.1 [a]	33.3			
Students' perceptions of personal safety at school	A Little or A Lot Better	32.9	33.3	159.4	2	0.00
	Stayed About the Same	59.1 [a]	33.3			
	A Little or A Lot Worse	8.0 [a]	33.3			
Students' avoiding school activities for fear of being harmed	A Little or A Lot Better	33.2	33.3	169.2	2	0.00
	Stayed About the Same	59.5 [a]	33.3			
	A Little or A Lot Worse	7.3 [a]	33.3			
Students' avoiding specific places in school for fear of being harmed	A Little or A Lot Better	32.5	33.3	176.7	2	0.00
	Stayed About the Same	60.6 [a]	33.3			
	A Little or A Lot Worse	7.0 [a]	33.3			
Students' being called hate-related words and seeing hate-related graffiti	A Little or A Lot Better	30.9	33.3	122.2	2	0.00
	Stayed About the Same	57.7 [a]	33.3			
	A Little or A Lot Worse	11.4 [a]	33.3			
Physical fights on school property	A Little or A Lot Better	41.9 [a]	33.3	81.5	2	0.00
	Stayed About the Same	45.1 [a]	33.3			
	A Little or A Lot Worse	13.1 [a]	33.3			
Students' carrying weapons on school property	A Little or A Lot Better	36.1	33.3	168.8	2	0.00
	Stayed About the Same	57.2 [a]	33.3			
	A Little or A Lot Worse	6.7 [a]	33.3			
Safety and security measures observed at school	A Little or A Lot Better	38.8 [a]	33.3	160.1	2	0.00
	Stayed About the Same	54.4 [a]	33.3			
	A Little or A Lot Worse	6.9 [a]	33.3			

Table 21 continues on next page.

Table 21. Student Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent students	Percent expected value	χ^2	*df*	*p*
Teachers threatened with injury or physical attack by students	A Little or A Lot Better	33.6	33.3	206.6	2	0.00
	Stayed About the Same	61.5 [a]	33.3			
	A Little or A Lot Worse	4.8 [a]	33.3			
Threats and injuries with weapons on school property	A Little or A Lot Better	31.9	33.3	169.7	2	0.00
	Stayed About the Same	60.6 [a]	33.3			
	A Little or A Lot Worse	7.5 [a]	33.3			
Violent and other crime incidents at school	A Little or A Lot Better	32.3	33.3	187.2	2	0.00
	Stayed About the Same	61.5 [a]	33.3			
	A Little or A Lot Worse	6.3 [a]	33.3			
Gang activity at school	A Little or A Lot Better	31.0	33.3	189.0	2	0.00
	Stayed About the Same	62.5 [a]	33.3			
	A Little or A Lot Worse	6.4 [a]	33.3			
Students' use of tobacco/alcohol/ drugs on school property	A Little or A Lot Better	26.1 [a]	33.3	30.3	2	0.00
	Stayed About the Same	47.7 [a]	33.3			
	A Little or A Lot Worse	26.2 [a]	33.3			
School conditions (schoolyard and buildings clean and in good condition)	A Little or A Lot Better	31.8	33.3	67.9	2	0.00
	Stayed About the Same	51.6 [a]	33.3			
	A Little or A Lot Worse	16.6 [a]	33.3			
The school being a supportive academic environment	A Little or A Lot Better	36.3	33.3	148.6	2	0.00
	Stayed About the Same	55.7 [a]	33.3			
	A Little or A Lot Worse	8.0 [a]	33.3			
Students' physical or mental health	A Little or A Lot Better	30.2	33.3	134.2	2	0.00
	Stayed About the Same	59.2 [a]	33.3			
	A Little or A Lot Worse	10.6 [a]	33.3			
Discipline problems reported at school (disruptive behavior or cutting classes/truancy)	A Little or A Lot Better	31.9	33.3	67.9	2	0.00
	Stayed About the Same	51.5 [a]	33.3			
	A Little or A Lot Worse	16.5 [a]	33.3			
Disciplinary actions taken by schools (suspensions, detention, etc.)	A Little or A Lot Better	35.2	33.3	89.9	2	0.00
	Stayed About the Same	51.7 [a]	33.3			
	A Little or A Lot Worse	13.1 [a]	33.3			

[a] Differs significantly from the expected value at $p < 0.05$.

Table 22. Staff Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent staff	Percent expected value	χ^2	*df*	*p*
Relationships among students	A Little or A Lot Better	58.3 [a]	33.3	234.3	2	0.00
	Stayed About the Same	39.1 [a]	33.3			
	A Little or A Lot Worse	2.6 [a]	33.4			
Relationships among students and staff	A Little or A Lot Better	60.9 [a]	33.3	200.5	2	0.00
	Stayed About the Same	33.9	33.3			
	A Little or A Lot Worse	5.2 [a]	33.4			
Respect for racial, ethnic, or cultural diversity	A Little or A Lot Better	37.9	33.3	256.4	2	0.00
	Stayed About the Same	60.5 [a]	33.3			
	A Little or A Lot Worse	1.6 [a]	33.4			
Meaningful opportunities for participation in school	A Little or A Lot Better	64.7 [a]	33.3	274.3	2	0.00
	Stayed About the Same	33.8	33.3			
	A Little or A Lot Worse	1.4 [a]	33.4			
Bullying at school	A Little or A Lot Better	48.3 [a]	33.3	152.5	2	0.00
	Stayed About the Same	44.8 [a]	33.3			
	A Little or A Lot Worse	6.8 [a]	33.4			
Students' perceptions of personal safety at school	A Little or A Lot Better	56.5 [a]	33.3	238.9	2	0.00
	Stayed About the Same	41.3 [a]	33.3			
	A Little or A Lot Worse	2.2 [a]	33.4			
Students' avoiding school activities for fear of being harmed	A Little or A Lot Better	50.4 [a]	33.3	248.9	2	0.00
	Stayed About the Same	48.3 [a]	33.3			
	A Little or A Lot Worse	1.3 [a]	33.4			
Students' avoiding specific places in school for fear of being harmed	A Little or A Lot Better	49.3 [a]	33.3	239.4	2	0.00
	Stayed About the Same	49.0 [a]	33.3			
	A Little or A Lot Worse	1.7 [a]	33.4			
Students' being called hate-related words and seeing hate-related graffiti	A Little or A Lot Better	50.6 [a]	33.3	197.7	2	0.00
	Stayed About the Same	45.5 [a]	33.3			
	A Little or A Lot Worse	3.9 [a]	33.4			
Physical fights on school property	A Little or A Lot Better	63.4 [a]	33.3	227.1	2	0.00
	Stayed About the Same	32.7	33.3			
	A Little or A Lot Worse	3.9 [a]	33.4			
Students' carrying weapons on school property	A Little or A Lot Better	47.7 [a]	33.3	253.5	2	0.00
	Stayed About the Same	51.3 [a]	33.3			
	A Little or A Lot Worse	1.0 [a]	33.4			
Safety and security measures observed at school	A Little or A Lot Better	61.0 [a]	33.3	253.2	2	0.00
	Stayed About the Same	37.1	33.3			
	A Little or A Lot Worse	1.9 [a]	33.4			
Teachers threatened with injury or physical attack by students	A Little or A Lot Better	46.1 [a]	33.3	203.5	2	0.00
	Stayed About the Same	50.4 [a]	33.3			
	A Little or A Lot Worse	3.5 [a]	33.4			
Threats and injuries with weapons on school property	A Little or A Lot Better	46.0 [a]	33.3	256.6	2	0.00
	Stayed About the Same	53.1 [a]	33.3			
	A Little or A Lot Worse	0.9 [a]	33.4			

Table 22 continues on next page.

Gang activity at school	A Little or A Lot Better	41.2 [a]	33.3	267.8	2	0.00

Table 22. Staff Perceptions of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent staff	Percent expected value	χ^2	*df*	*p*
	Stayed About the Same	58.3 [a]	33.3			
	A Little or A Lot Worse	0.6 [a]	33.4			
Students' use of tobacco/alcohol/drugs on school property	A Little or A Lot Better	33.4	33.3	61.3	2	0.00
	Stayed About the Same	49.9 [a]	33.3			
	A Little or A Lot Worse	16.8 [a]	33.4			
School conditions (schoolyard and buildings clean and in good condition)	A Little or A Lot Better	46.2 [a]	33.3	101.5	2	0.00
	Stayed About the Same	42.8 [a]	33.3			
	A Little or A Lot Worse	11.0 [a]	33.4			
The school being a supportive academic environment	A Little or A Lot Better	62.7 [a]	33.3	225.6	2	0.00
	Stayed About the Same	33.5	33.3			
	A Little or A Lot Worse	3.8 [a]	33.4			
Students' physical or mental health	A Little or A Lot Better	42.4 [a]	33.3	191.4	2	0.00
	Stayed About the Same	53.1 [a]	33.3			
	A Little or A Lot Worse	4.5 [a]	33.4			
Discipline problems reported at school (disruptive behavior or cutting classes/truancy)	A Little or A Lot Better	49.8 [a]	33.3	79.5	2	0.00
	Stayed About the Same	36.3	33.3			
	A Little or A Lot Worse	13.9 [a]	33.4			
Disciplinary actions taken by schools (suspensions, detention, etc.)	A Little or A Lot Better	55.7 [a]	33.3	118.9	2	0.00
	Stayed About the Same	33.4	33.3			
	A Little or A Lot Worse	10.9 [a]	33.4			

[a] Differs significantly from the expected value at $p < 0.05$.

Table 23. Student and Staff Comparisons of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent students	Percent staff	Percent total	χ^2	*df*	*p*
Relationships among students	A Little or A Lot Better	45.3 [a]	58.3 [b]	51.8	49.669	2	0.00
	Stayed About the Same	43.7	39.1	41.4			
	A Little or A Lot Worse	11.1 [a]	2.6 [b]	6.8			
Relationships among students and staff	A Little or A Lot Better	37.6 [a]	60.9 [b]	49.2	80.164	2	0.00
	Stayed About the Same	50.4 [a]	33.9 [b]	42.1			
	A Little or A Lot Worse	12.1 [a]	5.2 [b]	8.6			
Respect for racial, ethnic, or cultural diversity	A Little or A Lot Better	32.4 [a]	37.9 [b]	35.1	33.977	2	0.00
	Stayed About the Same	59.4	60.5	60.0			
	A Little or A Lot Worse	8.2 [a]	1.6 [b]	4.9			
Meaningful opportunities for participation in school	A Little or A Lot Better	40.2 [a]	64.7 [b]	52.5	100.388	2	0.00
	Stayed About the Same	51.2 [a]	33.8 [b]	42.5			
	A Little or A Lot Worse	8.7 [a]	1.4 [b]	5.0			
Bullying at school	A Little or A Lot Better	35.8 [a]	48.3 [b]	42.1	39.5	2	0.00
	Stayed About the Same	48.1	44.8	46.5			
	A Little or A Lot Worse	16.1 [a]	6.8 [b]	11.5			
Students' perceptions of personal safety at school	A Little or A Lot Better	32.9 [a]	56.5 [b]	44.8	88.027	2	0.00
	Stayed About the Same	59.1 [a]	41.3 [b]	50.1			
	A Little or A Lot Worse	8.0 [a]	2.2 [b]	5.1			
Students' avoiding school activities for fear of being harmed	A Little or A Lot Better	33.2 [a]	50.4 [b]	41.8	60.795	2	0.00
	Stayed About the Same	59.5 [a]	48.3 [b]	53.9			
	A Little or A Lot Worse	7.3 [a]	1.3 [b]	4.3			
Students' avoiding specific places in school for fear of being harmed	A Little or A Lot Better	32.5 [a]	49.3 [b]	40.9	53.924	2	0.00
	Stayed About the Same	60.6 [a]	49.0 [b]	54.8			
	A Little or A Lot Worse	7.0 [a]	1.7 [b]	4.3			
Students' being called hate-related words and seeing hate-related graffiti	A Little or A Lot Better	30.9 [a]	50.6 [b]	40.7	67.34	2	0.00
	Stayed About the Same	57.7 [a]	45.5 [b]	51.6			
	A Little or A Lot Worse	11.4 [a]	3.9 [b]	7.7			
Physical fights on school property	A Little or A Lot Better	41.9 [a]	63.4 [b]	52.7	78.439	2	0.00
	Stayed About the Same	45.1 [a]	32.7 [b]	38.8			
	A Little or A Lot Worse	13.1 [a]	3.9 [b]	8.5			
Students' carrying weapons on school property	A Little or A Lot Better	36.1 [a]	47.7 [b]	41.9	41.808	2	0.00
	Stayed About the Same	57.2 [a]	51.3 [b]	54.3			
	A Little or A Lot Worse	6.7 [a]	1.0 [b]	3.9			
Safety and security measures observed at school	A Little or A Lot Better	38.8 [a]	61.0 [b]	49.9	75.973	2	0.00
	Stayed About the Same	54.4 [a]	37.1 [b]	45.7			
	A Little or A Lot Worse	6.9 [a]	1.9 [b]	4.4			
Teachers threatened with injury or physical attack by students	A Little or A Lot Better	33.6 [a]	46.1 [b]	39.9	22.349	2	0.00
	Stayed About the Same	61.5 [a]	50.4 [b]	56.0			
	A Little or A Lot Worse	4.8	3.5	4.2			
Threats and injuries with weapons on school property	A Little or A Lot Better	31.9 [a]	46.0 [b]	38.9	56.197	2	0.00
	Stayed About the Same	60.6 [a]	53.1 [b]	56.9			
	A Little or A Lot Worse	7.5 [a]	0.9 [b]	4.2			

Table 23 continues on next page.

Violent and other crime incidents	A Little or A Lot Better	32.3 [a]	49.9 [b]	41.0	64.474	2	0.00

Table 23. Student and Staff Comparisons of School Climate Conditions in S3 Intervention Schools, 2011 and 2012 School Years

Indicator	Response	Percent students	Percent staff	Percent total	χ^2	*df*	*p*
at school	Stayed About the Same	61.5 [a]	49.4 [b]	55.5			
	A Little or A Lot Worse	6.3 [a]	0.7 [b]	3.5			
Gang activity at school	A Little or A Lot Better	31.0 [a]	41.2 [b]	36.1	43.704	2	0.00
	Stayed About the Same	62.5	58.3	60.4			
	A Little or A Lot Worse	6.4 [a]	0.6	3.5			
Students' use of tobacco/alcohol/ drugs on school property	A Little or A Lot Better	26.1 [a]	33.4	29.8	20.889	2	0.00
	Stayed About the Same	47.7 [a]	49.9	48.8			
	A Little or A Lot Worse	26.2 [a]	16.8 [b]	21.5			
School conditions (schoolyard and buildings clean and in good condition)	A Little or A Lot Better	31.8 [a]	46.2 [b]	39.1	31.862	2	0.00
	Stayed About the Same	51.6 [a]	42.8 [b]	47.2			
	A Little or A Lot Worse	16.6 [a]	11.0 [b]	13.8			
The school being a supportive academic environment	A Little or A Lot Better	36.3 [a]	62.7 [b]	49.5	96.749	2	0.00
	Stayed About the Same	55.7 [a]	33.5 [b]	44.6			
	A Little or A Lot Worse	8.0 [a]	3.8 [b]	5.9			
Students' physical or mental health	A Little or A Lot Better	30.2 [a]	42.4 [b]	36.3	33.247	2	0.00
	Stayed About the Same	59.2 [a]	53.1 [b]	56.1			
	A Little or A Lot Worse	10.6 [a]	4.5 [b]	7.6			
Discipline problems reported at school (disruptive behavior or cutting classes/truancy)	A Little or A Lot Better	31.9 [a]	49.8 [b]	40.9	46.651	2	0.00
	Stayed About the Same	51.5 [a]	36.3 [b]	43.9			
	A Little or A Lot Worse	16.5	13.9	15.2			
Disciplinary actions taken by schools (suspensions, detention, etc.)	A Little or A Lot Better	35.2 [a]	55.7 [b]	45.5	60.325	2	0.00
	Stayed About the Same	51.7 [a]	33.4 [b]	42.5			
	A Little or A Lot Worse	13.1	10.9	12.0			

Each superscript letter denotes a subset of role categories whose column proportions do not differ significantly from each other at $p < 0.05$. Column cells with different superscript letters differ at $p < 0.05$.

EducateWV
Enhancing Learning. For Now. For the Future.

West Virginia Department of EDUCATION

James B. Phares Ed.D.
State Superintendent of Schools