The Pennsylvania Positive Behavior Support Network: Describing Our Scale-Up

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Pennsylvania began scaling up high-fidelity implementation of School-Wide Positive Behavioral Interventions and Supports (SWPBIS) in 2006-2007 due to converging regulatory, legal, ethical, and practical influences. The Pennsylvania Community of Practice on School-Based Behavioral Health adopted Algozzine et al.'s (2010) blueprint to describe and evaluate the large-scale adoption of SWPBIS. That document provides the structure for assessing the context, content, fidelity, impact, and replication of installation efforts. Particular focus of the current review is on context, content, and fidelity of scale-up efforts. Over 600 schools have received training on SWPBIS since 2007, with fidelity of implementation confirmed in approximately 200 of those schools. Sources of support for the expansion of SWPBIS include federal and state grants, resources from regional and state-level allied youth and family-serving agencies, and local contributions. Training and technical assistance is provided by a cadre of certified facilitators who utilize standard training protocols. A statewide conference dedicated to Positive Behavioral Interventions and Supports has grown in course offerings and attendance while maintaining high attendee satisfaction. Future directions in Pennsylvania include expanding SWPBIS to more schools, authentically engaging youth and families, including culturally-sensitive training and practices into SWPBIS training and implementation, improving the quality of annual program evaluations, and helping schools install advanced tiers of support.

School-Wide Positive Behavioral Interventions and Supports (SWPBIS) has enjoyed a relatively recent, yet rich, history of wide-scale adoption across the United States as a school reform initiative in which barriers to student learning are removed or mitigated through tiered layers of prevention and intervention (Walker et al., 1996). While the visible characteristics of SWPBIS will differ across schools based on their local preferences, demographics, and prioritized goals, commonalities exist across all SWPBIS schools. These include establishment of a few positively-stated expectations; operationalized rules and routines for every school setting; explicit instruction of rules and routines delivered to all students in the natural settings; increased supervision in non-classroom settings (e.g., hallways, stairwells); purposeful and frequent reinforcement of prosocial behaviors with a token economy system; a sensible disciplinary code of conduct that is consistently applied; tri-annual screenings of all students to assess and intervene upon risks for psychological, behavioral, emotional, or social distress; and leadership from a core team (Sugai & Horner, 2009).

For some students, however, the prevention supports offered by SWPBIS model are not sufficient to remove barriers to learning. These students, consequently, need more intensive preventive and reactive supports and services to be successful in school (Dunlap, Sailor, Horner, & Sugai, 2009). Such strategic supports are categorized as tier 2 interventions and are typically provided to approximately 10-15% of students in a building. A small percentage of students (i.e., 2-8%) require intensive, individualized interventions layered on top of the existing tier 1 and tier 2 supports (Walker & Gresham, 2014). This tertiary level of intervention (i.e., tier 3 intervention) is individualized and often includes provision of supports and services to the student's family so that the student's mental health and behavioral improvements are supported in all ecologies (Eber, Sugai, Smith, & Scott, 2002).

The empirical support linking high-fidelity implementation of SWPBIS to many outcomes is compelling. Studies indicate a strong association between high fidelity SWPBIS and decreases in disruptive, dangerous, and antisocial behavior (e.g., Bradshaw, Mitchell, & Leaf, 2010; McCurdy, Mannella, & Eldridge, 2003) and reductions in exclusionary practices, such as out-of-school suspensions (Muscott, Mann, & LeBrun, 2008). Staff employed in SWPBIS schools report more time delivering instruction (Scott & Barrett, 2004), increases in teachers' perceptions of self-efficacy (Ross & Horner, 2007), and improved school climate, organizational health, and connection between staff and students (Bradshaw, Koth, Thornton, & Leaf, 2009). Most encouraging is the evidence associating SWPBIS with improved academic outcomes in reading and math (e.g., Bradshaw et al., 2010; Horner et al., 2009; McIntosh, Bennett, & Price, 2011; Simonsen et al., 2012). As a product of this growing evidentiary support, large-scale implementation of SWPBIS has gained momentum in recent years.

Pennsylvania is approaching the end of its first decade of large-scale SWPBIS adoption, and a need to critically evaluate our progress thus far is evident. Algozzine et al. (2010) codified the standard evaluative framework for large-scale implementation of SWPBIS which includes evaluation across five broad domains: Context; Input; Fidelity; Impact; and Replication, Sustainability, and Improvement. The Context domain is a summary of the goals of SWPBIS implementation and documentation of the training and supports provided to schools. The second domain, Input, is a review of professional training activities and materials, training attendee satisfaction, and the depth, breadth and quality of onsite technical assistance. Fidelity is the third program evaluation domain and refers to the extent to which the SWPBIS framework was implemented as intended. The fourth domain, termed Impact, provides a detailed analysis of

the effects of SWPBIS on any number of outcomes deemed essential to stakeholders. Algozzine et al. identified the fifth broad domain of large-scale evaluation (i.e., Replication, Sustainability, and Improvement) as the capacity to improve and sustain SWPBIS implementation integrity in schools across time and the capacity to scale-up SWPBIS in other schools and districts.

Evaluating Our Scale-Up

Most large-scale evaluations of SWPBIS focus almost exclusively on Algozzine et al.'s (2010) Impact domain. Attesting to the effects of implementing a school reform effort are vital and ought to be scrutinized in scholarly work. Summaries of the impact of SWPBIS in Pennsylvania are available on the papbs.org website; however, the focus of this review is on the less-commonly reviewed conceptualizations of Context, Input, and Fidelity (Algozzine et al., 2010). Evaluation these domains of large-scale implementation of SWPBIS is no less important than what has dominated the literature in recent years.

Despite specification of Context, Input, and Fidelity as three of the five broad domains of large-scale SWPBIS evaluation (Algozzine et al., 2010), few empirically-based reviews are published on such efforts and outcomes. For example, one refereed publication (Mass-Galloway, Panyan, Smith, & Wessendorf, 2008) and a handful of non-refereed publications in the public domain (e.g., Reynolds, Irwin, & Algozzine, 2009) focus on the content of SWPBIS training. Further, Chapman and Hofweber (2000) provided the only known peer-reviewed analysis of what types of educational professionals attended SWPBIS trainings. A few non-peer reviewed summaries offer some data regarding satisfaction with SWPBIS training (e.g., Florida's Positive Behavior Support Project, 2013). Given the lack of large-scale appraisals of the Context, Input, and Fidelity of SWPBIS

initiatives, these authors provide a systematic evaluation of these domains. Pennsylvania, in an effort to fully assess its own large-scale adoption of SWPBIS, perceives the evaluation of Context, Input, and Fidelity to be equally as valuable as Impact and Replication, Sustainability, and Improvement. Consequently, a systematic review of Pennsylvania's SWPBIS initiative, with an emphasis on Context, Input, and Fidelity, is the primary focus of this paper.

Context

Algozzine et al. (2010) suggested that evaluation of SWPBIS should include a review of need for and goals and objectives of implementation. Further, Algozzine et al. advocated for documenting who delivered and received training and what funding and other sources of support were provided to schools.

Pennsylvania's need for SWPBIS.

A number of influences merged in the mid-2000s giving rise to the need for Pennsylvania to reform educational practices with an emphasis on evidence-based approaches to educating all students. One driving force for systematic change emerged from federal regulatory requirements (e.g., Individuals with Disabilities Education Improvement Act, 2004). Specifically, beginning in December 2005, the United States Department of Education, Office of Special Education Programs (OSEP) required states to submit a State Performance Plan in which compliance and performance targets were identified and achievement of those goals for students with disabilities was monitored (20 U.S.C. 1416(b)). At least five of the 20 required State Performance Plan indicators relate to improving academic, disciplinary, and school completion rates of students with disabilities and students from diverse populations. These outcomes have

been focal points of improvement by Pennsylvania's Department of Education (PDE) since that time with annual data to that effect documented in annual reports to OSEP.

A second force driving Pennsylvania's adoption of SWPBIS resulted from litigation against the Commonwealth regarding inclusive educational practices. Until the early 1990s, Pennsylvania had one of the worst rates in the country regarding the inclusion of students with disabilities in regular education classrooms (United States Department of Education, 1992). Consequently, a class action lawsuit named for the lead plaintiff, Lydia Gaskin, was filed on behalf of over 280,000 Pennsylvania students with disabilities to change inclusive practices and provide training for educators across the Commonwealth. In September 2005, a settlement was reached in the decade-long *Gaskin v. Commonwealth* lawsuit. Among many agreements in the settlement were provisions that local educational agencies (LEAs) would carefully consider placements for all students and PDE would systematically and objectively monitor the extent to students with disabilities were educated in the least restrictive environment. It was believed that the core principles of SWPBIS (i.e. prevention, behavioral support) would, in part, bolster classroom management practices among educators, providing the social and behavioral support needed for students with disabilities to be more successive in inclusive settings. Therefore, SWPBIS offered hope to mitigate the long-standing challenges Pennsylvania schools faced with regard to inclusive practices.

A third force behind adoption of SWPBIS in Pennsylvania was the expansion of Response to Instruction and Intervention (RTII), the academic parallel to SWPBIS. Pennsylvania initiated a statewide effort in the 1980s and 1990s, known then as Instructional Support Teams (Conway & Kovaleski, 1998; Kovaleski, Tucker, & Stevens, 1996). That initiative, a precursor to RTII, provided schools with the

structure and staff to implement academic and behavioral interventions to students prior to referral for a special education eligibility evaluation. Codification of the Instructional Support Team initiative along with the undeniable evidence regarding explicit reading instruction (National Reading Panel, 2000) and advancement of psychometrically-sound universal screeners in academic skill areas evolved into what is now widely known as RTII. Thus, Pennsylvania schools were familiar with many of the features of SWPBIS, particularly those that bear a striking resemblance to RTII (Lane, Menzies, Kalberg, & Oakes, 2012).

The result of all these influences was an overwhelming agreement that PDE needed to provide assistance to the 500 Pennsylvania LEAs so that effective, inclusive practices could be implemented for all students. With RTII gaining momentum at that time, a void was still present with regard to supporting the social, emotional, and behavioral needs of students.

Goals and objectives of PAPBS Network.

The Pennsylvania Positive Behavior Support (PAPBS) Network was formed to oversee all elements of scaling up SWPBIS, including training and technical assistance, visibility, funding, political support, and policy efforts. The primary purpose of PAPBS Network is to install SWPBIS and integrated, effective school-based mental health services for students. The PAPBS Network enjoys the collaborative support and assistance from a number of state, regional, and local agencies representing children, youth, and family-serving agencies, education, mental health, juvenile justice, labor and industry, advocacy groups, managed care organizations, and law.

The PAPBS Network is led by a statewide leadership team known as the Pennsylvania Community of Practice on

School-Based Behavioral Health (CoP on SBBH). The stated mission of the PAPBS Network (n.d.), a state affiliate of the Association for Positive Behavior Support, reads:

> The mission of the Pennsylvania Positive Behavior Support Network (PAPBS Network), through training and technical assistance, is to support schools and their family and community partners to create and sustain comprehensive, school-based behavioral health support systems in order to promote the academic, social and emotional well-being of all Pennsylvania's students. (para. 1)

Further detailing of the PAPBS Network's Goal is to "ensure that all schools have the necessary technical assistance, collaborative opportunities, and evaluative tools needed to overcome non-academic barriers to learning and achieve competence and confidence in advancing academic, social, and emotional success for all students" (PAPBS Network, n.d., para. 2). Thus, the overarching theme of the CoP on SBBH is the installation of an integrated SWPBIS and Systems of Care (Child Welfare Information Gateway, 2008) framework.

Training and technical assistance providers.

Meeting the training and technical assistance needs of 500 LEAs, 150 charter schools, and hundreds of preschool programs necessitates developing expert regional and local capacity on a very large scale. Initial training was provided by OSEP technical assistant consultants. In 2009-2010, the CoP on SBBH established a formal process by which individuals from education, mental health, and aligned professions could apply for certification as an Independent PAPBS Network Facilitator. These individuals submit application materials and receive intensive coaching from experienced PAPBS

Network Facilitators. Provisional PAPBS Network Facilitators, under the direct supervision of an Independent PAPBS Network Facilitator, must then provide evidence of training and technical assistance delivered to schools. Provisional status is removed once certain criteria are met and the individual is designated as an Independent PAPBS Network Facilitator, eligible to assist any school interested in implementing SWPBIS.

Schools receiving training and technical assistance.

In 2006-2007, Dr. Lucile Eber, Steve Romano, and Marla Dewhirst (OSEP technical assistant consultants) provided initial SWPBIS training in summer 2007 to teams from 28 schools, representing 23 LEAs from various demographic communities. Six more schools were trained in the middle of the 2007-2008 academic year, bringing the number of cohort 1 schools to 34. Importantly, consultants from the three regional special education offices (Pennsylvania Training and Technical Assistance Network [PaTTAN]) and each of Pennsylvania's 29 Intermediate Units (IUs) attended these initial trainings so that statewide capacity for delivering training and technical assistance could be developed. One school withdrew from the project in that first year due to district realignment of priorities, leaving 33 schools at some stage of initial adoption by June 2008. While the majority (n =23; 67.6%) of cohort 1 schools were elementary buildings, nine middle and five high schools received SWPBIS training. Due to some schools spanning multiple levels, the total number of schools disaggregated by grade span exceeds the 33 in the cohort. These schools are categorized as a traditional cohort in that they simultaneously received the same professional development.

Transfer of training and technical assistance responsibility from the National Center on Positive Behavioral Interventions and Supports consultants to

PaTTAN and IU consultants occurred throughout those first two academic years (2007-2008; 2008-2009). While Dr. Eber and her staff remained available for technical advice, the onus of training and technical assistance was on PaTTAN and IUs beginning in fall 2008. Fidelity of implementation and measurement of key outcomes, including academic and behavioral indices, were reported annually to PDE and included in annual programmatic reviews (e.g., Runge & Staszkiewicz, 2011). Pennsylvania was beginning to understand how SWPBIS could be implemented in schools so that positive outcomes could be achieved.

A second wave of SWPBIS training and implementation efforts occurred since 2009-2010, with these schools categorized as cohort 2 sites. While not a cohort in the traditional sense due to initiation of professional development activities at different times and by different trainers, designation as cohort 2 was made to differentiate these schools from the initial 33 pilot sites. To date, 590 cohort 2 schools have been trained. Training and technical assistance to cohort 2 schools were initially provided by PaTTAN and IU consultants. Since approximately 2010, a cadre of 113 consultants has been trained and certified by the PAPBS Network as PAPBS Network Facilitators. These individuals largely perform the training and technical assistance tasks associated with SWPBIS scale-up efforts.

An account of the number of LEAs / Charters and school buildings that received SWPBIS training and technical assistance as of the 2014-2015 academic year is provided in Table 1. The data for LEAs / Charters represent the number of different LEAs or Charters participating in each cohort. School data indicate the number of different buildings in each cohort. Disaggregation of data by LEAs/Charters and schools for each cohort was provided given that some LEAs /Charters had more than one school building that received training and technical assistance.

Geographically-disaggregated data correspond to the regional coverage of each of the three PaTTAN offices. Note that the number of participating LEAs / Charters is not an arithmetic sum of the schools given that often multiple schools within the same LEA / Charter participated in SWPBIS training. While the 623 total schools receiving some level of training on SWPBIS is impressive, it is merely 18% of the approximately 3,400 public and charter schools in Pennsylvania. Further, approximately 18% of Pennsylvania's 1.8 million publicly-educated students attend a school trained in SWPBIS. Although not reflected in the summative tables and figures, the PAPBS Network has trained 70 early childhood programs across the Commonwealth. Overall, schools in the PAPBS Network represent a mix of rural, suburban, and urban districts.

Table 1 *PAPBS Network LEAs or Charter Schools and School Buildings by Cohort and PaTTAN Region*

	West		Central		East		
	n	%	*n*	%	*n*	%	**Total**
Cohort 1							
LEA / Charters	7	30.4	4	17.4	12	52.2	**23**
Schools	12	36.4	4	12.1	17	51.5	**33**
Cohort 2							
LEA / Charters	54	29.0	74	39.8	58	31.2	**186**
Schools	147	24.9	217	36.8	226	38.3	**590**
Combined Cohorts							
LEA / Charters	**57**	**29.8**	**73**	**38.2**	**61**	**31.9**	**191**
Schools	**159**	**25.5**	**221**	**35.5**	**243**	**39.0**	**623**

Note. **Percentages reflect the proportion of LEA / Charters or Schools for the relevant cohort. LEA = Local Educational Agency; Geographic designations correspond to the coverage area of the three PaTTAN offices.**

A tally of K-12 schools trained in SWPBIS by grade bands is offered in Table 2. Some schools reported in Table 1 are counted in multiple grade bands; therefore, the data in Table 2 often exceed the data in Table 1. Alternative schools and schools of unclear grade distributions are excluded in Table 2. Overall, the national trends of SWPBIS training and technical assistance efforts focused on elementary schools over secondary schools continues (e.g., Bradshaw et al., 2010; Simonsen et al., 2012). Readers are reminded that these data are reflective of training and technical assistance efforts, not necessarily fidelity of implementation.

Table 2 Participating PAPBS Network Buildings by Grade Level

	Preschool		Elementary (K-5)		Middle (6-8)		High (9-12)	
	n	%	*n*	%	*n*	%	*n*	%
Cohort 1	2	6.1	23	69.7	9	27.3	5	15.2
Cohort 2	33	5.8	404	71.0	291	51.1	109	19.2
Total	**35**	**5.8**	**427**	**70.9**	**300**	**49.8**	**114**	**18.9**

Note. **Cohort 1 *N* = 33; Cohort 2 *N* = 569; Percentages reflect the proportion of schools for the relevant cohort and do not sum to 100% because many buildings have more than one grade-span categorization.**

Financial support.

There is no single dedicated funding source to support the work of the PAPBS Network. The majority of financial support related to the scale-up of SWPBIS in Pennsylvania, however, is provided by federal funds and local appropriations. Individuals with Disabilities Education Act federal funds are administered and managed by the Bureau of

Special Education / PaTTAN and the Office of Child Development and Early Learning / Early Intervention Technical Assistance. Additionally, the co-directors of the PAPBS Network allocate other resources and personnel to serve as PAPBS Network Facilitators, thus providing financial and human capital for this work.

Financial support at the LEA level is provided in the form of summer contracts or substitutes for those staff attending trainings during instructional days. Nominal charges for training and technical assistance services provided by the PAPBS Network Facilitator are incurred by the LEA, although such services are free if that person is a PaTTAN or IU employee. In some instances, LEAs garner financial support from local businesses and organizations (e.g., parent-teacher associations, teachers' unions) to adopt and sustain SWPBIS.

A number of LEAs have been awarded competitive SBBH Performance Grants from PDE since 2007-2008. Approximately 15-20 LEAs each year receive awards for installation and expansion efforts along all tiers of SWPBIS. Monetary awards varied depending on the scope of the grant, with typical amounts ranging from $5,000 to $40,000 per LEA. Establishment Grants were used to support training and technical assistance to installed SWPBIS. Expansion Grants were designated to implement advanced tiers of support and universal screening practices. Differentiation of Expansion Grants has occurred in recent years to channel resources toward targeted efforts within the expansion of SWPBIS. For example, grants identified as Implementers' Forum provided resources for school teams to attend and present at the annual state-wide conferences. Professional Learning Communities grants were used to establish a community in which teams from high schools implementing SWPBIS share successes and experiences and collaborate with PAPBS Network Facilitators on resource mapping using

data to inform practices and refining classroom management systems. Three different types of tier 3 interventions and support systems were supported by the Positive Family Support Check-Up ; Project Rehabilitation, Empowerment, Natural Supports, Education, and Work (RENEW); and Youth Mental Health First Aid grants. Interconnected Systems grant funds were utilized to develop cross-agency supports for all students, including collaborative work between schools and mental health agencies. The SBBH Model Site grants provided resources to enable collaboration between successfully implementing sites considering the installation of tier 1 systems of support. Culturally-Responsive grants provided resources for schools to embed culturally-relevant practices into their SWPBIS framework so that policies, practices, and procedures are sensitive to the local community and culture. In an attempt to expand the practice of universally screening all students, Universal Screening grants were awarded to selected schools. Additionally, the Office for Safe Schools grants provided funding to address school safety and violence. Finally, two federal grants (School Climate Transformation and Safe Schools / Healthy Students) provide resources for, in part, installation of SWPBIS.

Input

Algozzine et al.'s (2010) second domain pertinent to evaluation of SWPBIS scale-up efforts is Input. They defined input as the professional development processes and materials used to support SWPBIS implementation as well as their perceived value.

Initial agreement between the PAPBS Network and LEAs

The first step an LEA must take to access the support of the PAPBS Network is to contact their respective Independent PAPBS Network Facilitator. A meeting then occurs between the Independent PAPBS Network Facilitator, the LEA administration inclusive of the superintendent or designee, director of special education, building principals, and additional key administrators, and other relevant parties (e.g., PaTTAN, IU). District commitments for implementing SWPBIS are reviewed and assured by the superintendent or designee, including establishment of District and Building Leadership Teams; designation of district- and building-level coaches with full-time equivalency assignments practical for the scope of the work; a 3-5 year commitment to training and technical assistance from Independent PAPBS Network Facilitator; designation of school climate as a one of the top three district priorities; allocation of funds for sustained implementation; and compliance with data submission requirements to PDE.

Once the superintendent or designee assures all of the above, a readiness checklist is completed for each school building to review current practices and policies consistent with SWPBIS, identify gaps between current and expected practices and policies, and plan accordingly for professional development to fully install SWPBIS at the school-wide level. The Independent PAPBS Network Facilitator and LEA collaboratively identify the individuals who will function as the external trainer, technical assistant, and coach throughout development and early adoption.

Training and technical assistance materials

All training materials provided to PAPBS Network schools are standardized, following the training materials of the OSEP Technical Assistance Center on Positive Behavioral Interventions and Supports. A review of this training series is

available in the SWPBIS Professional Development Blueprint (Lewis, Barrett, Sugai, & Horner, 2010). Archived training materials for these topics are available on a password-protected website for PAPBS Network Facilitators. Materials include sample agendas, content PowerPoints, supplemental materials, and samples of materials voluntarily provided by implementation sites.

Once the building and / or district team completes the initial days of SWPBIS training, targeted, onsite technical assistance is provided to ensure that fidelity of implementation is achieved. The range of technical assistance spans all content covered in the training sessions. As district and building teams receive tiers 2 and 3 training, technical assistance often focuses on installation of these practices and procedures.

Annual statewide SWPBIS conference.

The PDE recognized an opportunity to fill an unmet need for practitioners to continue learning about and network with others implementing SWPBIS and, in May 2011, initiated the inaugural PAPBS Implementers' Forum. Annual PAPBS Implementers' Forums are held each May in central Pennsylvania, allowing practitioners from all regions of the Commonwealth to attend. Each forum features a number of national keynote addresses from experts with implementation and research perspectives. Dozens of break-out sessions are offered at the beginner to experienced implementation level covering a wide range of topics. In recent years, professional development strands have highlighted content for particular stakeholder groups, including Advanced Tiers, Community / Family, Coaching, Higher Education, and Early Childhood.

Attendance at the annual Implementers' Forums has grown steadily, paralleling the number of schools trained and implementing SWPBIS: from 603 attendees at the inaugural 2011 forum to 1,223 registered attendees in May 2015.

Attendees are invited to voluntarily identify themselves by professional role and evaluate the quality of the forums. Approximately 50% of all attendees offered evaluative feedback on the three forums, a response rate comparable to other research evaluating conference attendees' satisfaction (Archer, 2008, MeetingMetrics, 2013). Consequently, generalizations from this sample to all attendees can be inferred.

Data from the May 2015 forum indicated that general educators (28.4%) accounted for over a quarter of attendees. Special educators (17.8%), educational administrators (13.9%), psychologists / social workers (12.7%), and school counselors (10.2%) were well represented among attendees. While proportionally very small, the presence of advocates, parents, and youth (1.0%) was encouraging as these constituents are the primary recipients of SWPBIS efforts. Clearly SWPBIS is of interest to a wide range of stakeholder groups. Further, this pattern of attendee roles is consistent with the previous two forums.

Implementers' Forum attendees were invited to voluntarily submit exit evaluations to gauge their perceptions of the quality of the conference. While the forum evaluation survey was not specifically designed with a theoretical model of conference satisfaction in mind, the broad domains assessed mirrored those from empirically-derived theories on attendee satisfaction (e.g., Severt, Wang, Chen, & Breiter, 2007). Specifically, the forum evaluations sought to determine the extent to which the conference was well organized, offered high quality materials, met stated objectives, improved professional knowledge and competencies, and facilitated professional networking opportunities using a 5-point Likert scale. These evaluative data were available for the three most recent conferences and are summarized in Figure 1.

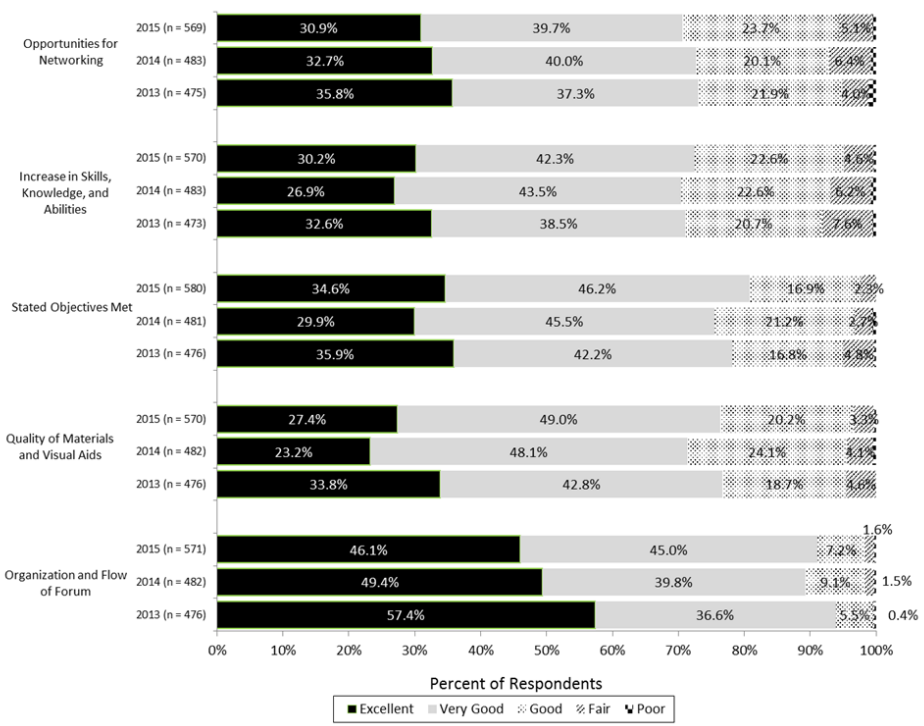


Figure 1. 2013 – 2015 Implementers' Forum Attendee Evaluations.

The organization and flow of the conference, with opening and mid-day keynotes and morning and afternoon breakout sessions, were perceived very favorably. Approximately 9 out of 10 attendees offered a Very Good or Excellent rating on the way in which the conference was structured. Over 70% of attendees rated the quality of session materials as Very Good or Excellent. Likewise, approximately three-quarters of attendees perceived a strong correspondence between stated and achieved conference objectives. Attendees reported learning valuable skills, knowledge, and professional competencies, as evidenced by an average of 71.3% of all attendees offering very favorable ratings (i.e., Excellent, Very Good). Lastly, 71-73% of attendees generally perceived the forums to be of substantial value in creating networking opportunities among all stakeholder groups.

Shapiro-Wilk statistics (*W*) for all survey items across the three years, presented in Table 3, were all statistically significant indicating attendees' ratings were not normally distributed. As a result, longitudinal analyses of attendees' ratings were completed using nonparametric procedures.

Nearly all ratings remained consistently strong across the three years, as evidenced by nonsignificant Kruskal-Wallis *H* tests for three of the five evaluative domains: Opportunities for Networking; Increase in Skills, Knowledge, and Abilities; and Stated Objectives Met. Longitudinal analysis of ratings regarding Organization and Flow indicated a significant difference across years, X^2 (2) = 11.809, p = 0.0027. Post hoc analyses with Bonferroni adjustments revealed that the ratings on this item from 2013 were statistically higher than in 2015, Wilcoxon Mann-Whitney *U* = 177601, p = 0.0035. All other paired comparison were nonsignificant. Similarly, the longitudinal analysis of attendees' satisfaction with the Quality of Materials and Visual Aids were statistically

Table 3 Normality of Attendees' Satisfaction Survey Results

	2013		2014		2015	
Item	W	df	W	df	W	df
Organization and Flow of Forum	.705*	476	.759*	482	.757*	571
Quality of Materials	.836*	476	.854*	482	.841*	570
Stated Objectives Met	.830*	.000	.841*	481	.822*	580
Increase in Skills, Knowledge, and Abilities	.853*	473	.861*	.000	.852*	570
Opportunities for Networking	.840	475	.850	483	.855	569

*** p = .000**

significant, X^2 (2) = 9.765, p = 0.0076. Post hoc analyses corrected for family-wise error indicated the only statistically significant difference was between ratings in 2013 and 2014, Wilcoxon Mann-Whitney U = 130287.5, p = 0.0005. In general, despite these two significant differences, all attendees offered high praise for the quality of the Implementers' Forums.

Fidelity

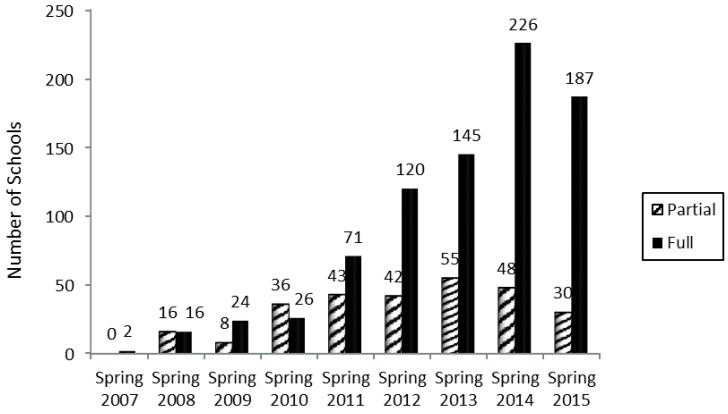
The CoP on SBBH adopted the industry-standard fidelity measures as a means of documenting the extent to which SWPBIS was implemented as designed. Specifically, SWPBIS fidelity is assessed using three different instruments: Team

Implementation Checklist (TIC; Sugai, Horner, & Lewis-Palmer., 2002; 2009), Benchmarks of Quality (BoQ; Kincaid, Childs, & George, 2005, 2010), and Schoolwide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2005).

The TIC is often used in the early adoption, well before full implementation status is evident given that it is a tool that is helpful for action planning. The BoQ is typically used to document fidelity each spring once schools installed all SWPBIS features. Once multiple years of BoQ data indicate full implementation, schools petition the PAPBS Network to complete an independent audit of fidelity using the SET. Once full implementation status is verified on the SET, special recognition is provided to the school via acknowledgement at the annual Implementers' Forum, listing on the PAPBS Network website, and awarding of a banner to be displayed in the school building.

Implementation fidelity data from combined cohorts are displayed in Figure 2. Spring 2014 observed the largest number of schools achieving full implementation status, with 226 schools designated as fully implementing SWPBIS. An additional 48 schools were categorized as partially implementing SWPBIS at that time based on data from their integrity checks (i.e., TIC, BoQ, SET) indicating they fell below the minimum threshold for designation as fully implementing. The number of schools fully implementing SWPBIS increased each year from spring 2009 to spring 2014; however, in spring 2015 a decrease in the total number of schools achieving full implementation status occurred.

Figure 2. Cross Sectional Count of Combined Cohort Schools Implementing SWPBIS Across Time



While it is exciting to observe approximately 200 schools at or near full implementation of SWPBIS, the proportion of all trained schools indicated in Table 1 remains relatively low, at 30%. Further, the decrease in the number of fully-implementing schools in spring 2015 is somewhat concerning. There are any number of reasons hypothesized for why fidelity data are not available for over two-thirds of trained schools. Re-prioritization of school goals and reforms to other initiatives may cause some trained schools to not implement or abandon SWPBIS after initial adoption. Some schools may still be in the planning or development phase, therefore they did not complete a fidelity check. Other schools may be struggling with implementation and decided against submitting fidelity measures for that year. Still other schools may have failed to complete a fidelity check despite fully implementing with integrity. Further, schools may have completed a fidelity check but did not

submit those data to the on-line portal accessed by the authors of this report. Finally, the PAPBS Network requires that all schools be evaluated by the SET once every five years. It is possible that the capacity of the PAPBS Network to complete these quinquennial audits has been outstripped by the demand from increasing numbers of schools resulting in a decrease in schools designated as implementing SWPBIS. Though there are likely multiple reasons for the majority of PAPBS Network schools not collecting fidelity data or failing to submit fidelity data in any given year, the encouraging trend is that SWPBIS is implemented across many schools in the Commonwealth. Efforts moving forward, however, need to focus on how to improve fidelity and data submission requirements of all PAPBS Network sites.

The Future

The PAPBS Network is proud of its expansion considering its humble beginnings in 2006-2007. The initial emphasis of training and technical assistance scale-up during our first decade largely focused in installing high fidelity SWPBIS and the delivery of these practices to as many inviting schools and LEAs as possible; however, our work is certainly not complete. A number of efforts will guide the work of the PAPBS Network and the utilization of resources from agency partners.

The PAPBS Network is embarking on an effort to improve the quality of its training materials and technical assistance provided to implementing schools relative to authentic engagement of youth and families in the planning, implementation, evaluation of all tiers of the SWPBIS framework via the Tiered Fidelity Inventory (Algozzine et al., 2014), and the fidelity with which manualized interventions at advanced tiers are implemented. It is believed that with increased, active participation of youth and families, the likelihood of adoption and sustained implementation, as well

as the positive expected outcomes associated with SWPBIS, will markedly improve. Further, integrating culturally-responsive practices into SWPBIS and advanced tier training materials and technical assistance may offer much-needed support in reducing the disproportionate rate of discipline meted out to students from racial minority groups and those with disabilities (Skiba et al., 2011). Specifically, work will focus on helping schools understand the cultural gap between the adults and students in the building, acknowledge how adults may misinterpret students' behavior and dole out unnecessary punishment, and install more culturally-sensitive behavior management strategies (Raffaele Mendez & Knoff, 2003; Skiba, Michael, Nardo, & Peterson, 2002; Weinstein, Curran, & Tomlinson-Clarke, 2003).

Additionally, a focus on advanced tiers of the SWPBIS framework has been energized. These include, but are not limited to, Check-In / Check-Out (Crone, Hawken, & Horner, 2010); Positive Family Support Check-Up (Lukenheimer et al., 2008); RENEW (Malloy, Drake, Abate, & Cormier, 2010); interconnected systems frameworks (Barrett, Eber, & Weist, 2013); and high fidelity wrap-around (Eber, Hyde, & Suter, 2011).

As noted in Table 2, most schools trained in SWPBIS are at the elementary level. Anecdotal evidence in Pennsylvania suggests that implementing SWPBIS in middle and high schools presents unique challenges that must be fully understood and specifically addressed (see Bohanon, Flannery, Malloy, & Fleming, 2009; Flannery, Fenning, McGrath Kato, & McIntosh, 2014; Freeman et al., 2016; Young, Caldarella, Richardson, & Young, 2012 for reviews). To that end, efforts in the coming years will focus on developing a community of practice among schools, practitioners, and researchers around the installation and scale-up of SWPBIS in secondary schools.

Future work will rigorously evaluate the effects of SWPBIS implementation on outcomes important to Pennsylvania. These include perceptions of school safety, discipline patterns, suspension rates, placements of students with disabilities in restrictive educational environments, and academic performance, to name a few. Many of these outcomes are described in annual evaluations posted on the PAPBS Network website; however, the methodology employed in previous annual evaluations has been relatively weak. Consequently, the primary authors, CoP on SBBH, and PDE are re-considering the design and methodology of the wide-scale program evaluation. Specifically, a more targeted and purposeful utilization of data from schools with long-standing commitments to and fidelity data indicative of SWPBIS implementation may bolster the quality of the evaluation. Under this alternate model of program evaluation, annual reports on the number of schools trained and implementing SWPBIS each year would continue. The focus of evaluating outcomes associated with high fidelity implementation, however, would be on a small, select group of schools. The difference in this approach would be that future analyses of the effects of SWPBIS on key outcomes could be gleaned from a sample of schools representing rural, suburban, and urban districts and across elementary, middle, and schools using, for example, a stratified sampling technique. There are merits and disadvantages to this alternate evaluation plan that continue to be discussed, with the eventual decision motivated by improving the integrity of the program evaluation.

Finally, the CoP on SBBH will continue to contract with its university allies to produce annual program evaluations of the scale-up efforts of SWPBIS, outcomes associated with high fidelity SWPBIS implementation, and effects of standard protocol tier 2 and tier 3 interventions. These results provide the evidence to garner continued

support and make the case for expansion of such efforts across the Commonwealth. So while our first decade is one in which we can be proud, considerable work remains.

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Appendix

Alphabetized List of Acronyms Used

Acronym	Phrase
BoQ	Benchmarks of Quality
CoP on SBBH	Community of Practice on School-Based Behavioral Health
IU	Intermediate Unit
LEA	Local Educational Agency
OSEP	Office of Special Education Programs
PAPBS	Pennsylvania Positive Behavior Support
PaTTAN	Pennsylvania Training and Technical Assistance Network
PDE	Pennsylvania Department of Education
RENEW	Rehabilitation, Empowerment, Natural Supports, Education, and Work
RTII	Response to Instruction and Intervention
SET	Schoolwide Evaluation Tool
SWPBIS	School-Wide Positive Behavioral Interventions and Supports
TIC	Team Implementation Checklist