



Indiana University of Pennsylvania

www.iup.edu

Department of Educational and School Psychology

Stouffer Hall, Room 246

1175 Maple Street

Indiana, PA 15705-1058

P 724-357-2316

F 724-357-6946

www.iup.edu/schoolpsychology

To: House Select Committee on School Safety
From: Timothy J. Runge, Ph.D., NCSP, Co-Principal Investigator Pennsylvania School-Wide Positive Behavioral Interventions and Supports
Date: June 3, 2013
Re: Positive Behavioral Interventions and Supports

I appreciate the opportunity to submit these written comments related to my upcoming testimony regarding Positive Behavioral Interventions and Supports (PBIS) and the relationship between PBIS, school safety, and positive school climate. I would first like to provide a brief synopsis of my credentials before reviewing the critical elements of PBIS, a description of training needed to implement PBIS, and a summary of outcomes associated with high-fidelity PBIS implementation. I hope that these comments provide sufficient evidence to demonstrate that **PBIS is an essential element of a comprehensive, multi-faceted approach to making our schools safe and creating environments that promote student development and success.** Furthermore, it is my desire that you **include in state legislation strong recommendations that all Pennsylvania schools implement PBIS as part of a comprehensive approach to school safety.**

I am trained as a school psychologist and currently hold the Nationally Certified School Psychologist credential. I was employed as a school psychologist for nearly a decade in public schools in the Commonwealth. I had the fortune at that time to work in schools that implemented elements of PBIS, notably universal-level PBIS commonly referred to as School-Wide Positive Behavioral Interventions and Supports (SWPBIS). After working as a practitioner in public education, I served as a technical assistant consultant with the Pennsylvania Department of Education, Bureau of Special Education, Training and Technical Assistance Network (PaTTAN). While with PaTTAN, I was the lead educational consultant for implementation of SWPBIS in the central region of the Commonwealth. Presently, I am employed as an assistant professor of educational and school psychology at the Indiana University of Pennsylvania (IUP). Since my hire at IUP in 2008, my colleague Dr. Mark Staszkiwicz and I have served as Co-Principal Investigators of Pennsylvania's SWPBIS project. Additionally, I am on the State Leadership Team for PBIS. I have presented numerous workshops and keynotes at regional, state-wide, and national conferences, co-authored eight research summaries, and published studies in peer-reviewed journals all on the topic of SWPBIS. I believe that these experiences and activities provide me with unique insight regarding how PBIS can improve school safety and create environments that enhance student learning.

Although recent tragic events at Sandy Hook Elementary School refocused our society's priorities to make schools safe places for all students to succeed, I assure you that considerable

work has already been accomplished in many schools across Pennsylvania to make our schools safe and conducive to learning. Many schools in Pennsylvania are implementing PBIS, and in particular SWPBIS, and the lessons learned and positive outcomes related to these efforts should inform local, state, and national conversations about how to make schools safer for all students.

Overview of Positive Behavioral Interventions and Supports

PBIS is a three-tiered system of assessment, prevention, and intervention that establishes the school climate and delivery of social, emotional, and behavioral support services for all students. At the universal, SWPBIS level (i.e., Tier 1 prevention), all students and staff in a building are exposed to school-wide practices intended to prevent problematic and disruptive behavior from occurring. These school-wide practices include:

- increasing adult supervision in unstructured settings (e.g., hallways, stairwells) so that inappropriate behavior is reduced due to proximal supervision;
- explicit instruction of behavioral rules and expectations across every school setting so that all students know and can demonstrate prosocial behaviors;
- employment of a process by which students are consistently reinforced for exhibiting prosocial behaviors;
- consistent utilization of reasonable disciplinary codes of conduct;
- universal screening of all students for behavioral and/or mental health challenges and provision of appropriate behavioral and mental health services to identified students;
- and regular data reviews to evaluate implementation of SWPBIS and effects on outcomes deemed important to the school community.

Outcomes from national studies, confirmed by data from the Pennsylvania SWPBIS project, demonstrate that this level of prevention is highly effective for the vast majority of students. We have found that approximately 80-90% of all students consistently exhibit appropriate behaviors with this small amount of prevention, thus requiring no additional support services. Put another way, most students educated in schools implementing high-fidelity SWPBIS rarely, or never, demonstrate inappropriate behavior warranting removal from the classroom for disciplinary action or the need for substantial mental or behavioral health services.

Approximately 10-20% of all students require more than basic prevention efforts to be academically, behaviorally, socially, and emotionally successful in school. These are students whose inappropriate behavior necessitates an occasional removal from the classroom for disciplinary action. For other students who do not display overt, inappropriate behavior, concerns from staff may center on symptoms of mental illness. Whether students are displaying externalizing or internalizing problem behaviors, it is evident that universal SWPBIS is not sufficiently comprehensive or intensive to adequately meet the needs of these students. These students require supplemental interventions and supports in addition to the school-wide prevention techniques. These Tier 2, or strategic, interventions typically include small group counseling or short-term therapy, manualized behavioral or social interventions, or interventions tailored from brief functional behavioral assessments. The goal of this level of intervention is to provide students with academic, behavioral, social, and/or emotional skills to minimize barriers to learning and overall mental health, thus augmenting the effectiveness of Tier 1 SWPBIS prevention efforts.

A small percentage of students still fail to respond appropriately to the combined efforts of Tier 1 SWPBIS and strategic Tier 2 interventions. These students exhibit chronic problematic externalizing and/or internalizing behaviors. Some of these students are frequently removed from the learning environment due to recurrent, challenging overt behavior while other students exhibit symptoms associated with social isolation, depression, and other indicators of mental illness. For this small percentage of students, highly individualized and intensive supports are needed in conjunction with the Tier 1 and 2 supports. This tertiary level of intervention (i.e., Tier 3 intervention) is student-centered and family-oriented in that supports are implemented not only for the student, but also for the family, given that there are often significant needs that extend across all the student's ecologies. Positive behavior support plans and intensive wrap-around mental health services are typically implemented across multiple life domains. Research suggests when schools implement high-fidelity SWPBIS and Tier 2 levels of support, approximately 3-8% of students require Tier 3 interventions.

Although the earliest pilots of the three-tiered PBIS framework emerged from the work of researchers and educators in Oregon in the 1990s, a considerable body of empirical literature since that time leaves little doubt that implementation of high-fidelity PBIS is associated with multiple positive outcomes for students and staff. Much of the research to date has focused on the effects of SWPBIS and Tier 2 intervention supports, with recent attention directed to effects of Tier 3 interventions. What follows is a review of the empirical support for Tier 1 SWPBIS and Tier 2 interventions.

Early efficacy studies of SWPBIS focused primarily on decreasing office discipline referrals. Our own research, consistent with many other researchers' findings, demonstrates that schools implementing high-fidelity SWPBIS observe dramatic reductions in office discipline referrals in the first year of implementation and these reductions are sustained across multiple years. This effect on ODRs is likely the most appealing outcome of SWPBIS since these data clearly reflect that inappropriate behavior becomes much less frequent in all school environments; however, SWPBIS affects more than rates of removals from the classroom. **Studies confirm that high-fidelity SWPBIS implementation is associated with the following outcomes:**

- **reductions in out-of-school suspensions;**
- **improved student attendance rates;**
- **decreases in student tardies to class;**
- **reductions in problematic and dangerous behavior during recess and other unstructured settings;**
- **reductions in antisocial behavior on school campuses;**
- **more inclusive school cultures that are accepting of students with significant disabilities;**
- **teachers spending more time delivering instruction and principals providing more instructional supervision;**
- **teachers having a greater sense of self-efficacy as instructors;**
- **and greater organizational health and staff affiliation.**

In addition to these outcomes, **emerging evidence is beginning to link high-fidelity SWPBIS implementation with significant increases in academic skills and performance on state No Child Left Behind accountability measures.**

Training and Implementation of PBIS

Pennsylvania schools interested in implementing PBIS receive training and technical assistance from a network of approved Pennsylvania Positive Behavior Support (PAPBS) Facilitators under the direction of PaTTAN. Initial training to develop the universal SWPBIS framework requires approximately three full-day trainings with follow-up planning time for the core team of educators responsible for facilitating the model. Subsequent to high-fidelity SWPBIS implementation, additional trainings are provided that focus on Tiers 2 and 3 levels of support. Although not necessarily applied to all schools precisely in the same manner, a brief review of training content is offered below:

- Days 1-3: SWPBIS Training
 - Universal principles of SWPBIS
 - Defining school-wide expectations
 - Teaching rules and routines
 - Social and tangible reinforcement system
 - Data-based decision making
 - Office discipline referrals
- Days 4-5: Advanced SWPBIS Training
 - Universal screening
 - Classroom management techniques
 - Pre-correcting problem behavior
 - De-escalation techniques
 - Effective teaming practices
- Days 6-7: Tier 2 Training
 - Behavior Education Program
 - Check-In / Check-Out
 - Functional behavioral assessment
 - Small group instruction
 - Data analysis
- Day 8-9: Tier 3 Training
 - Wrap-around mental health services
 - Person-centered planning
 - Intensive support
 - Positive behavior support plans

Please note that Tiers 2 and 3 training are highly specialized based on the needs of the individual schools. Thus the training indicated above for these tiers is a general outline.

Outcomes Associated with Pennsylvania's SWPBIS Project

While PBIS was originally conceptualized in the 1990s, its wide-spread adoption in Pennsylvania commenced in 2007. My role as the Co-Principal Investigator for the Pennsylvania SWPBIS provides opportunities to share a summary of the positive outcomes associated with high-fidelity SWPBIS implementation in Pennsylvania. The purpose of our annual program evaluation reports is to document the input, fidelity, impact, and replication of SWPBIS across the Commonwealth.

PaTTAN trained an initial cohort of 34 schools to implement SWPBIS beginning in summer 2007. Since that time, more than 350 additional schools have been trained by PaTTAN and a cadre of PAPBS Facilitators. Under the direct leadership of the PAPBS State Leadership Team, large- and small-scale trainings, onsite technical assistance, and consultative services are provided to these schools as they implement SWPBIS. Schools that receive training and technical assistance from PAPBS Facilitators agree to implement the SWPBIS model endorsed by the United States Department of Education, Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports.

All PAPBS Network schools receive training and onsite technical assistance from a PAPBS Facilitator using the same general training materials endorsed by the PAPBS State Leadership Team. Onsite technical assistance for schools is titrated based on the needs of the individual schools. A few schools receive School-Based Behavioral Health grants, funded by PDE / PaTTAN, to initiate or sustain SWPBIS efforts; however, most grantees are awarded one-year grants, and it is the responsibility of the local educational agency to establish a sustainability plan once grant monies are exhausted. All PAPBS Network schools are encouraged to collaborate on PBIS implementation efforts with at least one local mental health agency.

The majority of schools trained in SWPBIS are at the elementary level, accounting for approximately 63% of all PAPBS Network schools. Program-Wide PBIS implementation, a downward extension of SWPBIS to preschool and early childhood education facilities, was noted in recent reviews of education facilities trained and implementing PBIS in Pennsylvania. Evaluation of Program-Wide PBIS was conducted by other researchers and is not summarized in these comments.

Schools affiliated with the PAPBS Network are situated in rural, suburban, and urban settings with varying levels of student diversity along socioeconomic, first-language, racial, and ethnic characteristics. **Approximately 188,000 students are educated in PAPBS Network schools representing nearly 10% of all students educated in Pennsylvania's public schools.** At least 79 mental health agencies provide critical expertise and services in these schools.

Not surprisingly, the number of schools achieving SWPBIS full implementation status by spring 2012 was at its highest ever in Pennsylvania, with 111 schools reporting high-fidelity SWPBIS implementation. By spring 2012, 74 elementary schools were fully implementing SWPBIS, followed by 13 middle schools, 10 high schools, and 14 schools classified as other (e.g., K-12, K-8). An additional 39 schools were designated as partially implementing SWPBIS in spring 2012. Overall, these data clearly indicate that high-fidelity SWPBIS implementation

typically occurs within two years of initial training. A small percentage of schools achieve full implementation status within one year of initial training, although this is often the exception more than the norm. A still smaller percentage of schools require three to four years to achieve full implementation status. Lastly, some schools simply never achieve full implementation status after receiving the initial training. Factors associated with this latter occurrence appear to be related to a combination of issues including lack of administrative support, poor buy-in from staff, and prioritization of other school initiatives (e.g., focus on improving PSSA reading scores).

Once a school achieves full implementation status, sustained implementation is not only likely, but probable. Longitudinal data from 24 schools indicates that 63% of schools sustain SWPBIS for at least three years. This percentage is likely an underestimate given incomplete longitudinal data from many other schools. Only 4% of schools regressed in implementation status after three years. Reasons for sustained, high-fidelity SWPBIS implementation include administrative support, the strong commitment and expertise of a core team of educators facilitating implementation, annual review of outcomes consistently demonstrating that the framework produces significant effects on students, staff, and the community, and prioritization of SWPBIS as a general operational procedure within a school.

Cross sectional and longitudinal analyses of staff perceptions of how well SWPBIS was implemented were consistent with more objective measures of fidelity. In other words, staff reported noticeable improvements in implementation of the PBIS framework across multiple years. We also survey staff annually on their perceptions of risk factors associated with school violence and factors that protect students from potential violence and school failure. Such risk factors include drug and gang activity, vandalism, truancy, community poverty and crime, and instances of child abuse. Examples of protective factors include opportunities for students to engage in extracurricular activities, parental involvement, school-community collaboration, acceptance of diversity, and high expectations for student learning and productivity. Theoretically, as SWPBIS is implemented, one would expect that risk factors diminish and protective factors increase, and recent peer-reviewed research apparently supports this proposition. Our results confirmed a significant decrease in staff perceptions of risk factors associated with school violence after a five-year period of high-fidelity SWPBIS implementation. Likewise, a significant increase in protective factors was observed across the same five-year period. When risk and protective factors are concurrently analyzed, a desirable trend is noted with the ratio of protective to risk factors growing from pre-implementation to five years post-implementation.

ODR rate data were disaggregated by building level (e.g., elementary and secondary schools) given results from studies documenting substantial differences in ODRs as a function of grade level. Cross sectional and longitudinal analyses of ODR rates in elementary schools suggested an initial reduction in the first year of full SWPBIS implementation with a plateauing effect noted in subsequent years. Among a small sample of schools for which we had complete longitudinal data over a five-year span, the average annual ODR rate per 100 students was 56.8 prior to full implementation. The ODR rate dropped 77% to 13.3 per 100 students in the fourth year of full implementation. These data represent meaningful and positive changes in inappropriate student behavior.

The net effect of reductions in ODRs is a substantial increase in instructional time for teachers, administrative time for principals, and, most importantly, learning opportunities for students. Using longitudinal data from a subgroup of elementary schools, the typical SWPBIS school administrator regained 6.6 hours of time per 100 students each year. This time, previously allocated for dealing with discipline problems and their resultant administrative action, could be refocused on other administrative duties. For elementary teachers, sustained SWPBIS implementation resulted in 6.6 hours of instructional time regained per 100 students in a given academic year. Students in elementary schools implementing SWPBIS were provided 13.2 more hours of instruction per 100 students across the academic year.

Trends in ODR data among secondary schools were not as clear as those in elementary schools. Cross sectional analyses suggested, and longitudinal data from a few schools confirmed, a slight decline in ODR rates during the initial years of implementation. The relatively small number of secondary schools for which we had complete longitudinal data limited our capacity to identify substantial trends in ODR rates.

ODR data were analyzed to determine the percentage of students who respond to SWPBIS implementation with a high, moderate, or low rate of disruptive behavior. On average, SWPBIS at the elementary level results in nearly 93% of the student population receiving zero or one ODR. This percentage is markedly higher than the 84% and 80% observed in middle and high schools, respectively. Approximately 5% of all elementary students receive two to five ODRs in a year compared to approximately 11% of middle and high school students. At the highest rates of disruptive behavior, six or more ODRs in an academic year, just under 2% of all elementary students met this criterion. Five and nine percent of middle and high school students, respectively, fell in this category.

These results indicate that SWPBIS is largely effective at managing disruptive behavior for the majority of elementary, middle, and high school students. In fact, 9 out of 10 elementary students respond to SWPBIS with zero or one ODR in an entire academic year. At the secondary level, 8 out of 10 middle or high school students receive zero or one ODR. At the highest level of disruptive behavior, less than 2 out of 100 elementary students receive six or more ODRs. Five out of 100 middle school students receive six or more ODRs, and 9 out of 100 high school students receive six or more ODRs. These data clearly indicate that SWPBIS is effective for a large proportion of students across elementary, middle, and high school levels. Moreover, these data indicate it is relatively easy for schools implementing SWPBIS to identify students who require the most intensive level of support to be successful.

Cross sectional reviews of out-of-school-suspension (OSS) rates among elementary schools suggested a decline from baseline to full implementation of SWPBIS; however, complete longitudinal data were not available to confirm this supposition. Using data from a small sample of elementary schools, the number of OSS days served per 100 students fell by over 50%, from 3.8 during baseline to 1.6 after four years of high fidelity implementation. Detailed analysis of secondary school OSS trends and levels across time could not be conducted given limited availability of data.

We continue to monitor the efficacy of one manualized Tier 2 intervention called Check-In / Check-Out (CICO). Briefly, a student placed in a CICO intervention meets daily with an adult mentor before and after school so that more frequent and intensive prompts for appropriate behavior across school settings can be provided. The student carries a card with him or her throughout the day on which classroom behavior is rated on a point-system. The student and mentor then review the behavior card at the end of the day. Verbal praise and tangible rewards are given for earning a pre-determined percentage of the total available points for the day. The student takes the behavior card home for caregivers to review and sign. The student then returns the next day with the signed behavior card from the previous day and meets with his or her mentor. This cycle then repeats each day.

Across a four-year span, 28 elementary schools, six middle schools, and one high school implemented CICO. The relative success of the CICO intervention at curbing inappropriate behavior and reinforcing prosocial behavior was consistent across multiple years. Cross sectional reviews suggested that, on average, CICO is effective for approximately 80-90% of elementary students enrolled in CICO. For secondary students, more than half of all students enrolled in CICO respond positively to the intervention.

Academic achievement data, specifically Pennsylvania System of School Assessment (PSSA) results, were compared between an initial cohort of SWPBIS schools and non-implementing schools. Schools that fully implement SWPBIS for multiple years observed greater percentages of students performing in “Advanced” or “Proficient” ranges in reading and math compared to state averages. By the fourth year of full SWPBIS implementation, 81% of students were categorized as “Proficient or Advanced” in reading, compared to 73% of all students in Pennsylvania. In mathematics, 86% of all students in SWPBIS schools achieved “Advanced or Proficient” status compared to 77% of all students in Pennsylvania. Likewise, schools that fully implement SWPBIS experience larger decreases in students performing “Below Basic” or “Basic” in reading and math compared to state averages.

As was noted in the previous paragraphs, high-fidelity SWPBIS implementation is associated with a host of positive outcomes for students and staff. All of these outcomes are either directly or indirectly related to creating safe schools that promote positive learning environments for all students.

Comprehensive Model of School Safety

Ultimately, creating safe schools that promote positive learning environments in which all students can be successful requires a comprehensive set of prevention and intervention strategies implemented by well-trained and dedicated professionals. Of particular empirical strength is the position statement of the Interdisciplinary Group on Preventing School and Community Violence (December 19, 2012; <http://curry.virginia.edu/articles/sandyhookshooting>). This document, co-authored by national leaders in school safety and violence prevention, is endorsed by dozens of allied organizations representing varied school professionals and should be referenced by all schools when re-evaluating school safety plans. This position statement notes that society’s efforts to reduce violence should focus on every environment, not just schools, since the majority of violent acts occur away from schools. Nonetheless, the tragedy of

Newtown, CT was reason to reiterate a comprehensive approach to addressing violence. This position statement articulates the following elements necessary for a comprehensive effort to address school safety:

1.) An integrated and balanced approach that addresses physical safety and emphasizes social, behavioral, and emotional learning. Regarding the former, research clearly supports the caution lauded in the position statement to not turn our schools into armed fortresses. While increasing the presence of armed and well-trained professionals may be warranted in some schools, a balanced approach is one that considers each school individually. Thus, sensible use of physical protections, when appropriate, and the implementation of prevention and intervention strategies to promote prosocial behavior is advocated by the authors. Note that PBIS, and in particular SWPBIS, fits the criteria of an empirically-validated model for strengthening students' social, behavioral and emotional functioning.

2.) A strong and dependable multi-directional system of communication between school personnel, students, parents, and the community. Schools need to foster these lines of communication within and outside their walls. Notably, it is recommended that schools work collaboratively with law enforcement, other first responders, and mental health providers to create a comprehensive approach to maintaining school safety and helping students in need of support. Consistent with the theme of efficient communication systems is the need to train a school-based team responsible for conducting appropriate threat assessments and effectively addressing credible threats to school safety.

3.) A school and community that engenders genuine feelings of connectedness between all people within these environments. Communities that are interconnected tend to be substantially safer places. Students most at-risk for a host of challenges (e.g., drop-out; delinquency; violence) often are those who are least connected to peers and teachers. Likewise, schools need to foster environments in which bullying and other student conflicts are unacceptable and treated seriously and effectively. Again, the three-tiered model of PBIS fits logically with the tenets of fostering a student body connected to the faculty and staff of a school.

4.) A service delivery model that is sensitive to the varying levels and types of supports students need. Along with this comes the adequate resource allocation. Research indicates a three-tiered model is most efficient and effective at titrating students' needs with available resources. Again, PBIS and its related academic three-tiered model of service delivery, Response to Instruction and Intervention, are two such frameworks that should be implemented in schools.

Along with the above four-part comprehensive plan, the position statement reminds us of other efforts society must champion. First, society needs to stop stigmatizing mental illness. We need to recognize that mental health is equally important as physical health and we must allocate appropriate funds for mental health treatment. We need more mental health providers in schools. Lastly, we need to acknowledge that media glorifying violence is tacitly endorsed by society.

Conclusion

Ultimately, we must implement a multi-faceted, comprehensive plan for promoting school safety and meeting the varied academic, social, emotional, and behavioral needs of all students. PBIS has the empirical support needed to champion its implementation in all schools. SWPBIS, the universal prevention framework of PBIS, is the evidenced-based practice that will help schools create safe environments in which all students have opportunities to succeed. It is my hope, and the desire of many dedicated educators, parents, mental health providers, and aligned professionals, that you consider legislation supportive of large-scale implementation of PBIS in all schools in our great Commonwealth. Thank you for your time and your consideration to this extremely important matter. Please contact me if you have additional questions (trunge@iup.edu; 724 357-3788).

Respectfully,



Timothy J. Runge, Ph.D., NCSP
Assistant Professor
Indiana University of Pennsylvania
Co-Principal Investigator, PA SWPBIS Project

Bibliography

- Boneshefski, M. J., & Runge, T. J. (in press). Addressing disproportionate discipline practices within a school-wide positive behavioral interventions and supports framework: A practical guide for calculating disproportionality rates. *Journal of Positive Behavior Interventions*. doi: 10.1177/1098300713484064
- Bradshaw, C. P., Koth, C. W., Thornton, L. A., & Leaf, P. J. (2009). Altering school climate through school-wide positive behavioral interventions and supports: Findings from a group-randomized effectiveness trial. *Prevention Science, 10*, 100-115. doi: 10.1007/s11121-008-0114-9
- Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions, 12*, 133-149. doi: 10.1177/1098300709334798
- Crone, D. A., Hawken, L. S., & Horner, R. H. (2010). *Responding to problem behavior in schools: The behavior education program* (2nd ed.). New York, NY: Guilford Press.
- Eber, L., Sugai, G., Smith, C. R., & Scott, T. M. (2002). Wraparound and positive behavioral interventions and supports in the schools. *Journal of Emotional and Behavioral Disorders, 10*, 171-180.
- Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive behaviour support: Effects on student discipline problems and academic performance. *Educational Psychology, 25*, 183-198. doi: 10.1080/0144341042000301265
- Runge, T. J., Sudano, R. A., & Lawson, T. (2009, Winter). School-wide positive behavior support in Pennsylvania. *InSight, 29*(2), 8-9.
- Runge, T. J., & Staszkiwicz, M. J. (2009). *Programmatic evaluation of Pennsylvania's school-wide positive behavior support project: A summary of implementation fidelity and impact on behavioral and academic outcomes on cohort 1 schools in school years 2007-2009*. Unpublished technical report, Department of Educational and School Psychology, Indiana University of Pennsylvania, Indiana, PA.
- Runge, T. J., & Staszkiwicz, M. J. (2010a). *Pennsylvania school-wide positive behavior support initiative: 2009-2010 executive summary*. Indiana, PA: Indiana University of Pennsylvania.
- Runge, T. J., & Staszkiwicz, M. J. (2010b). *Pennsylvania school-wide positive behavior support: 2nd annual summary of implementation fidelity and impact on behavioral and academic outcomes on cohort 1 schools in school years 2006-2010*. Unpublished technical report, Department of Educational and School Psychology, Indiana University

of Pennsylvania, Indiana, PA.

Runge, T. J., & Staszkiwicz, M. J., & O'Donnell, K. H. (2011). *Pennsylvania school-wide positive behavioral interventions & supports: 3rd annual summary of implementation fidelity and impact on PAPBS network schools in years 2006-2011*. Unpublished technical report, Department of Educational and School Psychology, Indiana University of Pennsylvania, Indiana, PA.

Runge, T. J., Staszkiwicz, M. J., & O'Donnell, K. H. (2012). *2010-2011 PAPBS network SWPBIS executive summary*. Indiana, PA: Indiana University of Pennsylvania.

Runge, T. J., Staszkiwicz, M. J., McFall, S. R., & Hunter, K. J. (2013). *Pennsylvania school-wide positive behavioral interventions & supports: 2013 executive summary*. Indiana, PA: Indiana University of Pennsylvania.

Sugai, G., & Horner, R. H. (2009). Schoolwide positive behavior support. In W. Sailor, G. Sugai, G. Dunlap, and R. Horner (Eds.). *Handbook of positive behavior support* (pp. 307-326). New York, NY: Springer Science + Media.

Spaulding, S. A., Irvin, L. K., Horner, R. H., May, S. L., Emeldi, M., Tobin, T. J., & Sugai, G. (2010). Schoolwide social-behavioral climate, student problem behavior, and related administrative decisions: Empirical patterns from 1,510 schools nationwide. *Journal of Positive Behavior Intervention, 12*, 69-85. doi: 10.1177/1098300708329011