

North Carolina Positive Behavior Intervention & Support Initiative

Evaluation Report

2006-2007

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Executive Summary

The vision of the North Carolina Positive Behavior Intervention & Support (PBIS) Initiative is that all schools in the state will implement PBIS as an effective and proactive process for improving social competence and academic achievement for all students. The initiative's mission is to provide leadership, professional development, resources, and on-going support in order for schools to successfully implement Positive behavior intervention & support. The effort is part of the North Carolina State Improvement Program funded through IDEA. The message that teachers teach and children learn behavior in schools is spreading throughout the state and its educational programs. Administrators, teachers, and other professionals are identifying effective practices, creating the structures to support them, and using data to guide their decision-making and evaluate their efforts. From the creation of a single center in the fall of 2000, the North Carolina Positive Behavior Intervention & Support Initiative included 548 schools and programs in 81 educational units (i.e., schools systems, charter schools, juvenile justice centers) by the end of the 2006-07 school year. Throughout the state, educators are requesting information about how to implement Positive Behavioral Support. In schools using PBIS, office discipline referrals as well as in-school and out-school suspensions are dropping and administrators and teachers are gaining valuable instructional time. As the effort continues to spread throughout the state, students participate in positive, proactive teaching programs in all aspects of their lives and North Carolina's Positive Behavior Intervention & Support Initiative is becoming a model of successful statewide implementation for widespread replication, dissemination, and review.

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North Carolina Positive Behavior Intervention & Support Initiative

[\[http://www.ncpublicschools.org/positivebehavior/\]](http://www.ncpublicschools.org/positivebehavior/)

Evaluation Report

In 2004-05, *Brunson Elementary School* in Forsyth County reported 263 office discipline referrals (ODRs) and 49 suspensions. By the end of 2005-06, ODRs had dropped by 41 percent to 156 and suspensions had dropped by 16 percent to 41. These changes resulted in gains of 6 days of administrator time and 22 days of instructional time.

In Charlotte, suspension days dropped by 39% between 05-06 and 06-07 at West Charlotte High School. Mountain Island's enrollment grew by 17.6% between 05-06 and 06-07, but the average referrals per day only grew by 3%. Hidden Valley Elementary reduced office discipline referrals by 68% and suspensions by 77% between 05-06 and 06-07.

Schools across the state are providing similar data as *North Carolina's Positive Behavior Intervention & Support Initiative* continues to grow.

[\[http://www.ncpublicschools.org/positivebehavior/data/goodnews/\]](http://www.ncpublicschools.org/positivebehavior/data/goodnews/)

Context

Beginning in 1997, the State Board of Education developed a statewide accountability system that sets annual performance standards for each school in the state to measure the growth in performance by students. Students in North Carolina have made significant academic gains as reported by the ABC Accountability Program since that time. Rigorous and relevant academic standards and assessments are central to the system. The No Child Left Behind (NCLB) federal

legislation has created a new way to look at academic progress. Schools have begun to use research-based practices to teach students reading, writing, and mathematics. In addition, NCLB is requiring that states identify “Persistently Dangerous Schools.” Positive Behavior Intervention & Support (PBIS) implementation is a way to impact the learning environments in all schools in order to support high student performance and to reduce behavior problems.

Positive Behavior Intervention & Support is a systems approach or process, not a specific curriculum. The goal is to help educate all students, especially those with challenging behaviors. Because of the emphasis on continuous, data-based improvement, each school individualizes its implementation of PBIS. The adoption and sustained use of effective leveled-practices is central to PBIS and there is a strong emphasis on systematically teaching behavior using effective instructional methodology. There is support for teaching and encouraging pro-social behavior to small groups of students, as well as systematically teaching and implementing behavior interventions for the most difficult students.

Positive Behavior Intervention & Support in North Carolina

School-wide Positive Behavior Intervention & Support establishes and reinforces clear expectations for behavior. It is a team-based system that requires participation of teachers, administrators, families, and students and a common approach to discipline that is proactive, instructional, and outcome-based. Data guide decision-making with teams using information from the entire school and the whole school day.

The need for systematic attention and Positive behavior intervention & support is compelling and long-standing in most states. PBIS programs provide a comprehensive process for teaching socially appropriate behaviors in order to optimize academic achievement for each student. The U. S. Department of Education’s Office of Special Education Programs has

established the National Technical Assistance Center for Positive Behavioral Interventions and Supports (Center) at the University of Oregon to:

- Identify and enhance knowledge about, and practical demonstration of, school-wide PBIS practices, systems and outcomes along the three-tiered continuum (primary, secondary, tertiary); and
- Develop, conduct, and evaluate technical assistance and dissemination efforts that allow implementation of evidence-based practices on a large scale with high durability and effectiveness.

To accomplish its mission, the Center operates as a consortium of researchers, advocates, family members, teacher educators, professional association leaders, and model developers, and receives guidance from an external evaluation team. A network of professionals provides feedback and support for Center-related products and activities, receives and disseminates Center-related resources and information, and participates in Center-sponsored local, state, and national events and activities. Bob Algozzine, Co-Director of the Behavior and Reading Improvement Center at UNC Charlotte is North Carolina's center-affiliated partner and collaborator.

The Behavioral Support & Special Programs Section in the Exceptional Children (EC) Division at the North Carolina Department of Public Instruction provides technical assistance and access to program funds to school systems throughout North Carolina. This section specifically assists school systems with developing programs and services for difficult to serve children with disabilities. The Behavioral Support & Special Programs Section has taken the lead in implementing Positive behavior intervention & support Programs in North Carolina. During

the past year, individuals, schools, and systems receiving support continued to grow with PBIS programs implemented in more than half of the counties in the state. Six two-thirds time Positive Behavior Intervention & Support Regional Coordinators are now hosted by five school systems and one Charter School. The addition of these professionals has greatly increased the capacity to support implementing schools.

North Carolina also has an active Positive Behavior Intervention & Support Leadership Team that includes state and local representation as well as professionals from college and university professional development programs and community agencies. The team has a focused Action Plan and meets regularly to define and refine the work being done in North Carolina's PBIS schools. The PBIS Regional Coordinators co-lead three subcommittees that are working on coaching and training, evaluation, and visibility and political support. The work of the subcommittees and the PBIS Leadership Team is also greatly expanding North Carolina's capacity to support the schools implementing and evaluating efforts to improve academic and social behavior in its schools.

Who Is Receiving Training and Support?

Positive Behavior Intervention & Support started as a part of the North Carolina State Improvement Program in August, 2000 to include seven reading centers, one mathematics center, and one behavioral support center. The primary purposes of the grant were personnel development and systems change. Currently, three-quarters of the counties in the state have at least one school participating in the North Carolina Positive Behavior Intervention & Support Initiative (see Figure 1). Steady growth has been evident (see Figure 2 and 3) and improving and sustaining the effort has been supported with continued funding (see Figure 4).

Figure 1

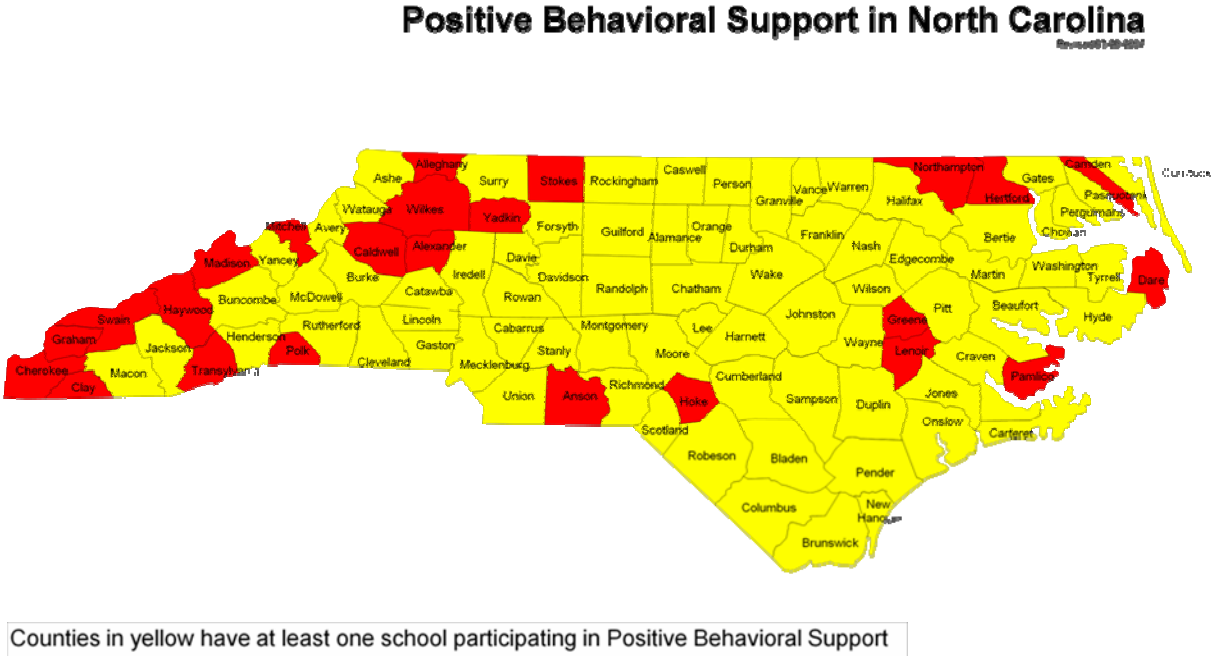


Figure 2

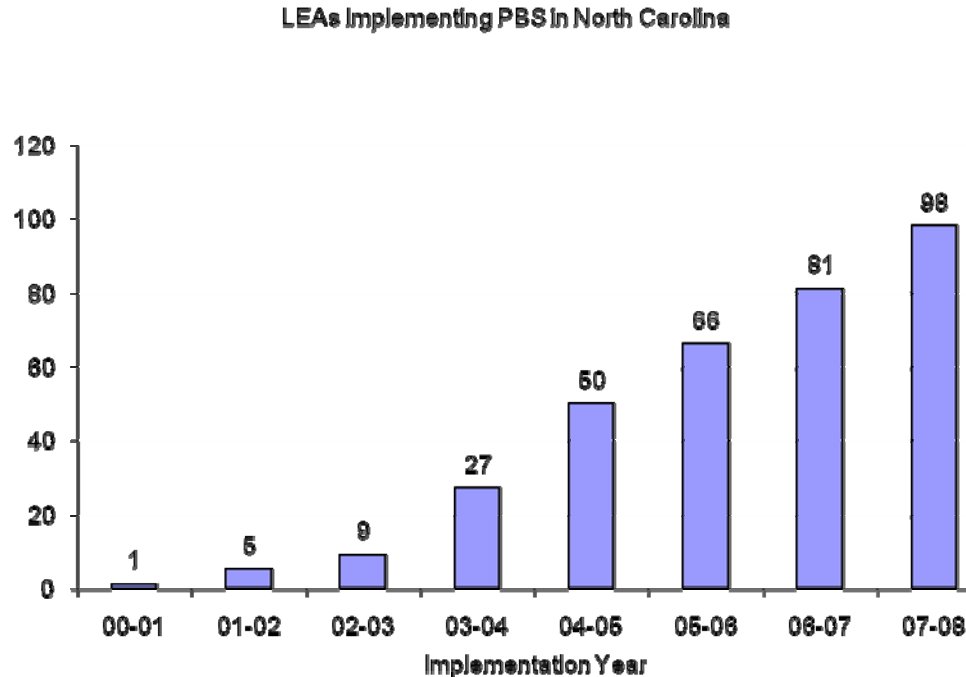


Figure 3

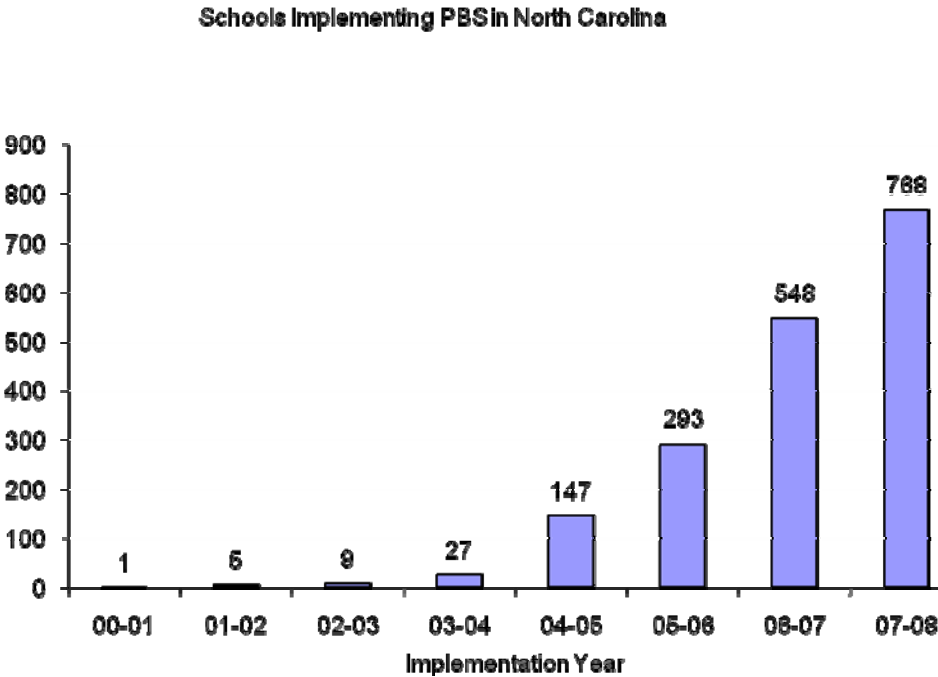
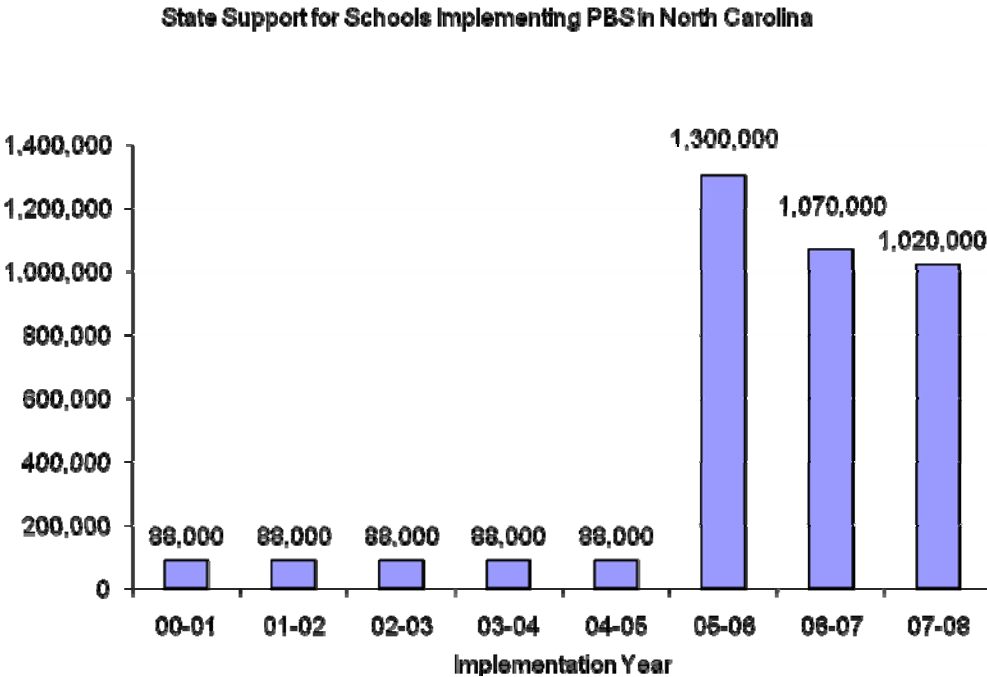


Figure 4



What schools are receiving implementation support?

North Carolina is phasing out financial support for individual implementation sites and now emphasizing PBIS training with the development of Regional PBIS Coordinator positions. Some funding will be used to help low-performing school systems begin the PBIS process and to participate in other initiatives. Overall, across the state, the number of LEAs implementing PBIS has continued to grow each year and the effort is being supported by local school districts as an integral part of their ongoing educational programs. For example, the district-wide initiative which began in the Charlotte-Mecklenburg Schools (CMS) in the Spring of 2004 with the training of 18 schools has grown steadily each year (see Table 1) with all schools expected to be included by 2010. Currently, statewide efforts are being supported across elementary (57%), middle (27%), and high (10%) schools as well as in alternative settings such as Juvenile Justice Facilities and Charter Schools (6%).

Table 1

Growth in CMS Implementation of Positive Behavior Intervention & Support

	School Year				
	03-04	04-05	05-06	06-07	07-08
Schools	0	18	48	65	72

What proportion of school systems is implementing Positive Behavior Intervention & Support?

Currently, 81 of 115 traditional LEAs (70%) in North Carolina participate in the PBIS initiative and an additional 17 LEAs began the process during the 2007-08 school year. Five Charter Schools (13% of all charter schools) and 5 Youth Development Centers (100% of all YDC) are actively implementing PBIS.

What Professional Development Supports the Implementation Process?

The Exceptional Children Division through the Positive Behavior Intervention & Support Regional and Charter Consultants coordinated new school team trainings throughout the state. School System staff must be identified as coach/trainers and participate in module training with school teams. After these individuals complete the three modules and train the three modules, they are considered PBIS trainers for school teams in their own and other local education agencies. Trained personnel throughout the state are sharing a consistent set of materials [<http://www.ncpublicschools.org/positivebehavior/implementation/>]. PBIS Coordinators are available in all regions of the state:

Name	Region	Contact
Minnie Kidd	Northeast	mkidd@ecpps.k12.nc.us
Heather Solone	Southeast	heather_solone@pender.k12.nc.us
Correy Watkins	Central	cwatkins@wesk12.org
Jennifer Krause	Charter Schools	jkrause@joycharter.org
Cayce McCamish	Midwest	cmccamish@mgsd.k12.nc.us
Julie Weatherman	West	jmweatherman@yancey.nc.net

What training events were conducted?

During 2006-07 school teams and coaches/trainers participated in training in the regions of the Behavioral Support Services Section Consultants and Positive Behavior Intervention & Support Coordinators. The training consisted of 6 days through out the school year for the teams. During the 2006-07 school year the Modules were presented multiple times with 220 school teams completing at least the first level of training (Module 1). North Carolina has adopted and adapted the PBIS modules from Missouri. Trainers will continue to provide this instruction to new schools and coach/trainers in 2007-08.

Who participated in the training events?

School teams of five or six plus a school system coach/trainer participated in the training sponsored by the Behavioral Support Services Section and the Positive Behavioral Support Regional Coordinators. For example, in Durham Public Schools, twenty-four elementary and middle schools had participated in some level of training by the end of 2004-05 school year. In CMS, all participating schools have completed the first module, including 41 elementary, 20 middle, 7 high, and 3 special education/alternative schools. Twenty-one elementary, 6 middle, and 4 high school and 1 special education/alternative school have completed the second module and 9 elementary, 1 middle, and 1 high school have completed all three modules.

To What Extent have Behavior Support Practices Changed?

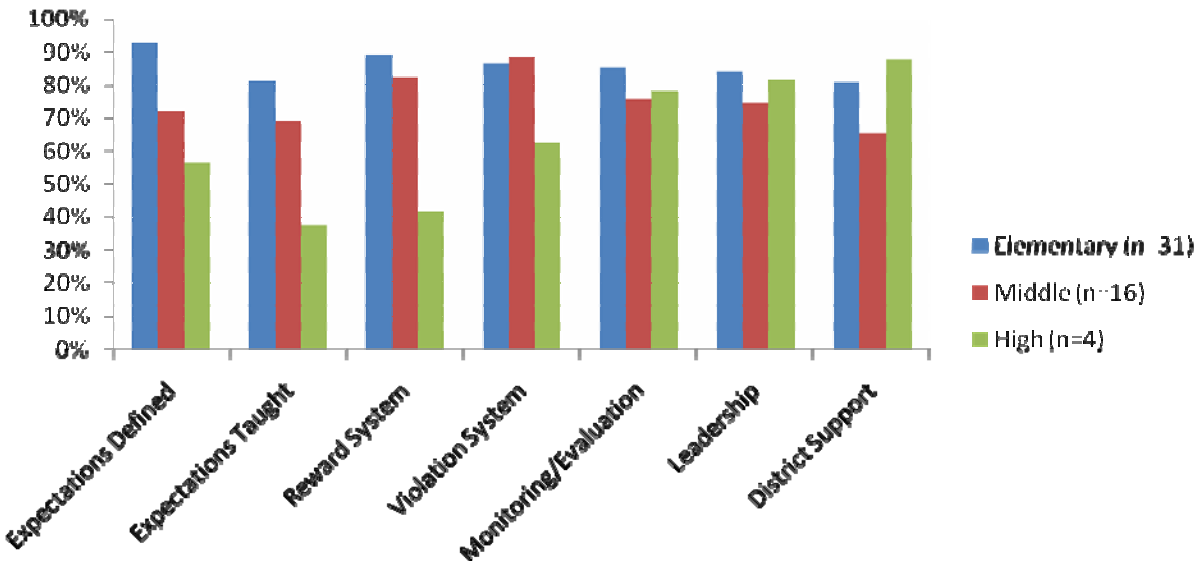
During the 2006-07 school year, the Positive Behavior Intervention & Support Regional Coordinators and LEA coach/trainers evaluated some of the schools implementing PBIS using the School Wide Evaluation Tool (SET) developed by the National Positive Behavior Interventions and Supports Center and widely used in PBIS evaluation efforts

(<http://www.ncpublicschools.org/positivebehavior/data/evaluation/>). Critical features of the SET are: Expectations Defined, Behavioral Expectations Taught, On-going System for Rewarding

Behavioral Expectations, System for Responding to Behavioral Violations, Monitoring and Decision-Making, Management, and District-Level Support. The SET is useful for assessing and evaluating the critical features of school-wide effective behavior support. It provides trend lines of improvement and sustainability over time. Evaluation data are from interviews with the administrators, teachers, other staff, and students and observations in the school.

SET data were available for 31 (61%) elementary, 16 (31%) middle, and 4 (8%) high schools ($N=51$); the distribution by type of schools was similar to that for schools implementing PBIS across the state (see p. 7). More of the elementary schools (77%) had SET Total scores of 80% or higher than middle (44%) or high schools (25%). Average scores on SET subscales varied across levels of schools and were generally higher for elementary than middle and high schools (see Figure 5).

Figure 5

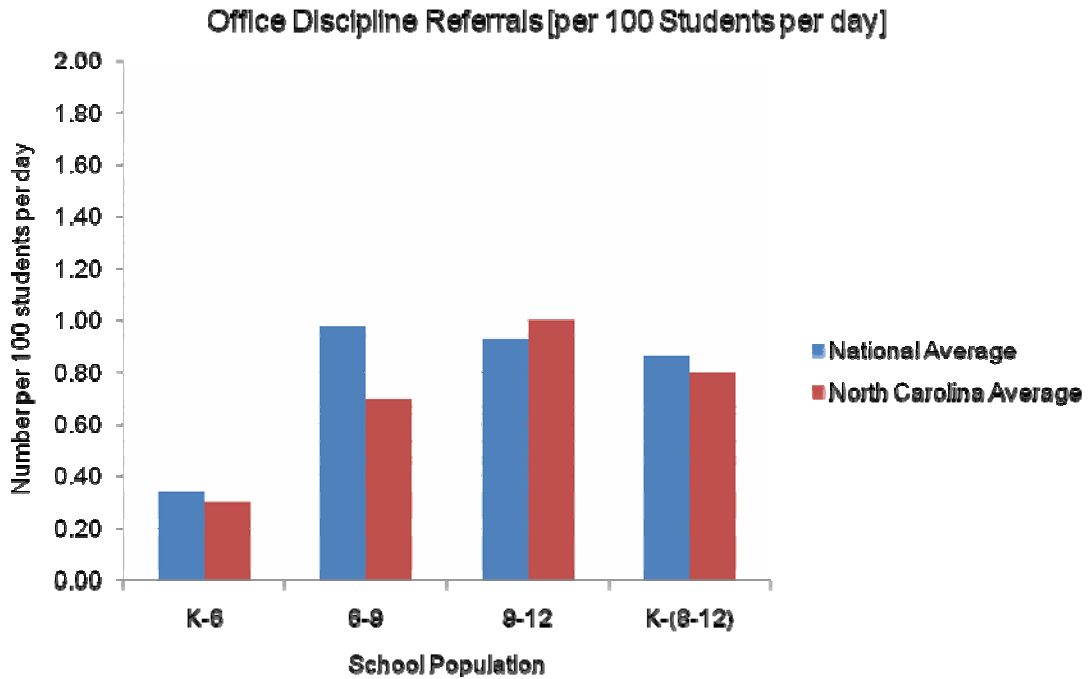


To What Extent is There an Impact on Student Behavior?

Office discipline referrals (ODRs), suspensions, expulsions, and levels of behavior risk are reflective of changes resulting from implementation of Positive behavior intervention & support systems (cf. <http://www.ncpublicschools.org/positivebehavior/data/>. Attendance, academic achievement, and school risk factors are also useful impact indicators. Selected outcomes reflective of improvements in NC schools are summarized below; other indicators are regularly reported and updated in other sources (cf. <http://www.ncpublicschools.org/positivebehavior/data/goodnews/> and <http://www.ncpublicschools.org/positivebehavior/data/gains/>).

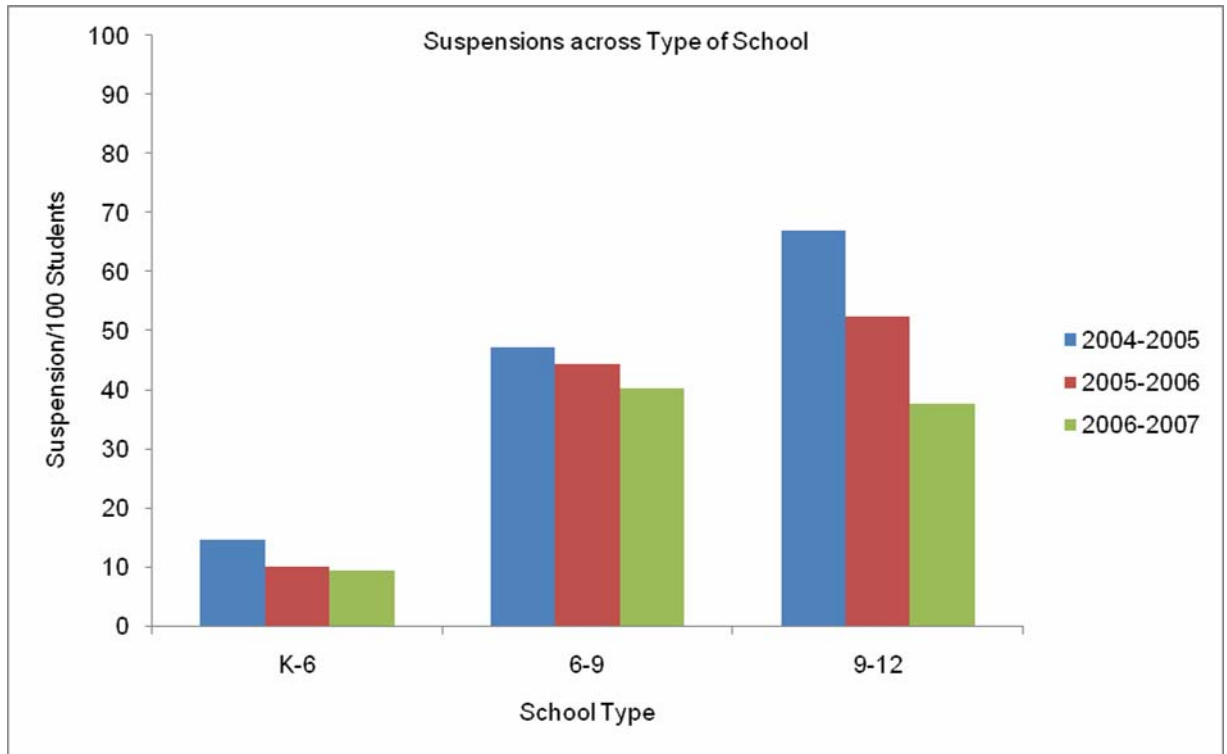
Office discipline referrals. The School-Wide Information System (SWIS) is a web-based program used to improve behavior support in elementary, middle (junior high) and high schools (www.swis.org). SWIS provides school personnel with accurate, timely, and useful information for making decisions about PBIS systems and discipline events. SWIS data are available on office discipline referrals (ODRs), suspensions, and levels of behavior risk in schools implementing PBIS in North Carolina. Across the country, office discipline referrals are used as markers for managing and monitoring disruptive behavior in schools (Metzler, Biglan, Rusby, & Sprague, 2001; Sugai, Sprague, Horner, & Walker, 2000). During 2006-07 school year, data from 1974 schools, 1,025, 422 students, and 948, 874 ODRs were compiled using SWIS. The average ODRs per 100 students per school day was .34 ($SD=.37$) across grades K-6, .98 ($SD=1.36$) across grades 6-9, .93 ($SD=.83$) across grades 9-12, and .86 ($SD=1.14$) in schools enrolling students across Kindergarten to grades 8-12 (www.swis.org). Available data from schools implementing PBIS in North Carolina compare favorably with these national averages (see Figure 6).

Figure 6



Suspensions. Disciplinary offenses are often dealt with using short-term suspensions, which can last up to ten days. Time out of school almost always has a negative impact on achievement and progress; suspending students from schools takes valuable time teachers can devote to instruction and administrators can spend on other leadership activities. There has been a consistent decrease in suspensions across schools implementing PBIS in North Carolina over the past three years (see Figure 7).

Figure 7

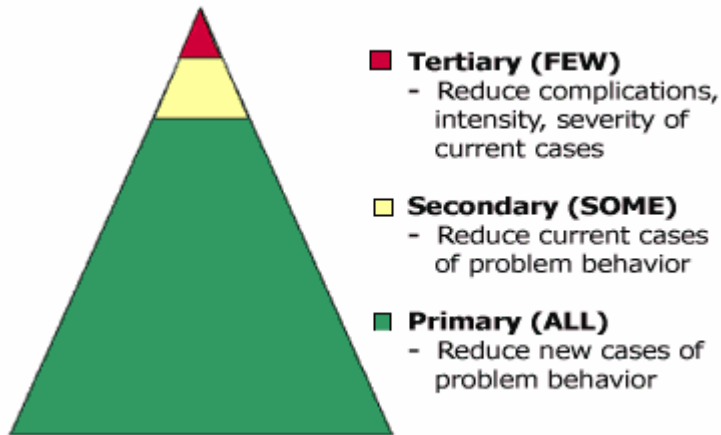


Levels of behavior risk. A key component of PBIS is creating and sustaining primary (school-wide), secondary (classroom), and tertiary (individual) systems of support for academic and social behavior in schools (Sugai, et al., 2005). The “triangle” (see Figure 8) is used as a heuristic to reflect these levels of support as well as to represent levels of behavior risk (e.g., 0-1 low risk, 2-5 some risk, 6+ high risk). Normative ODR distributions reported by Horner, Sugai, Todd, and Lewis-Palmer (2005) suggest that across schools 87% ($SD=10$) of students had 0 to 1 ODR, 9% ($SD=6$) had 2 to 5 referrals, and 4% ($SD=5$) had 6 or more referrals. Similar indices for levels of behavior risk have been suggested (cf. Irvin, Tobin, Sprague, Sugai, & Vincent, 2004) and used in large scale evaluation research (cf. Ervin, Schaughency, Matthews, Goodman, & McClinchey, 2007: Levels of behavior risk evident in schools implementing PBIS in North

Carolina were comparable to these expectations and better than those evident in comparison schools not systematically implementing PBIS (see Figure 9).

Figure 8

Level of Intervention

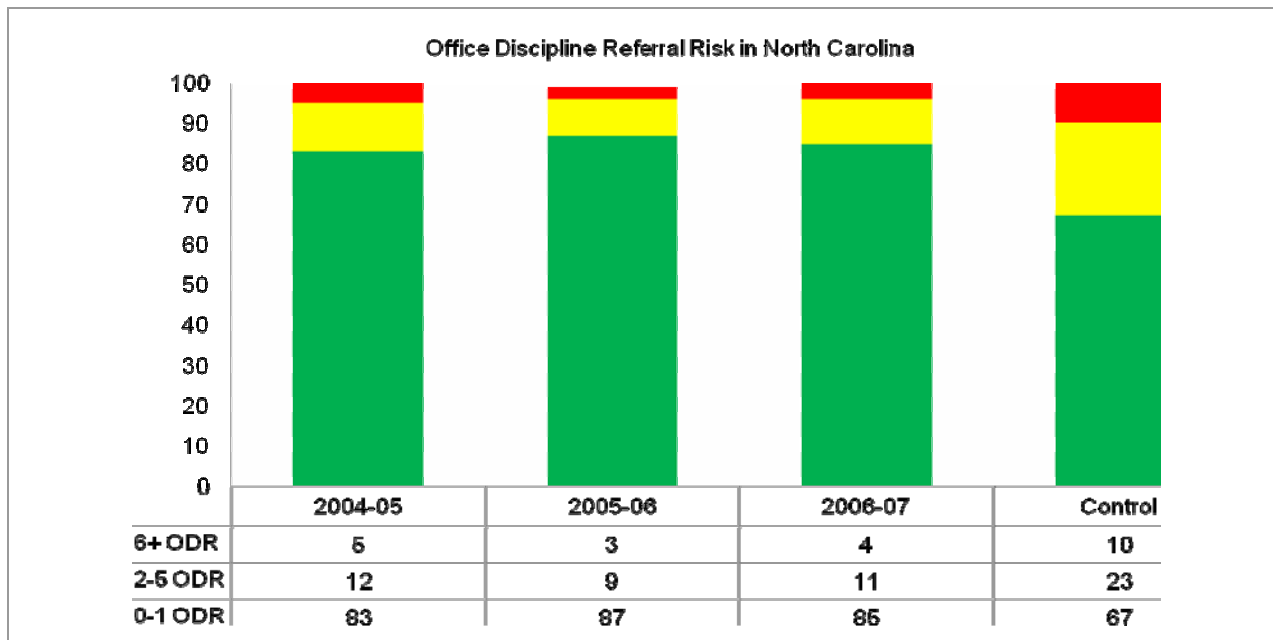


Levels of Risk

- High Risk (6+ ODRs)**
- Some Risk (2-5 ODRs)**
- Low Risk (0-1 ODRs)**

Source: OSEP Technical Assistance Center for Positive Behavioral Interventions and Support

Figure 9



To what extent has academic performance changed in participating schools?

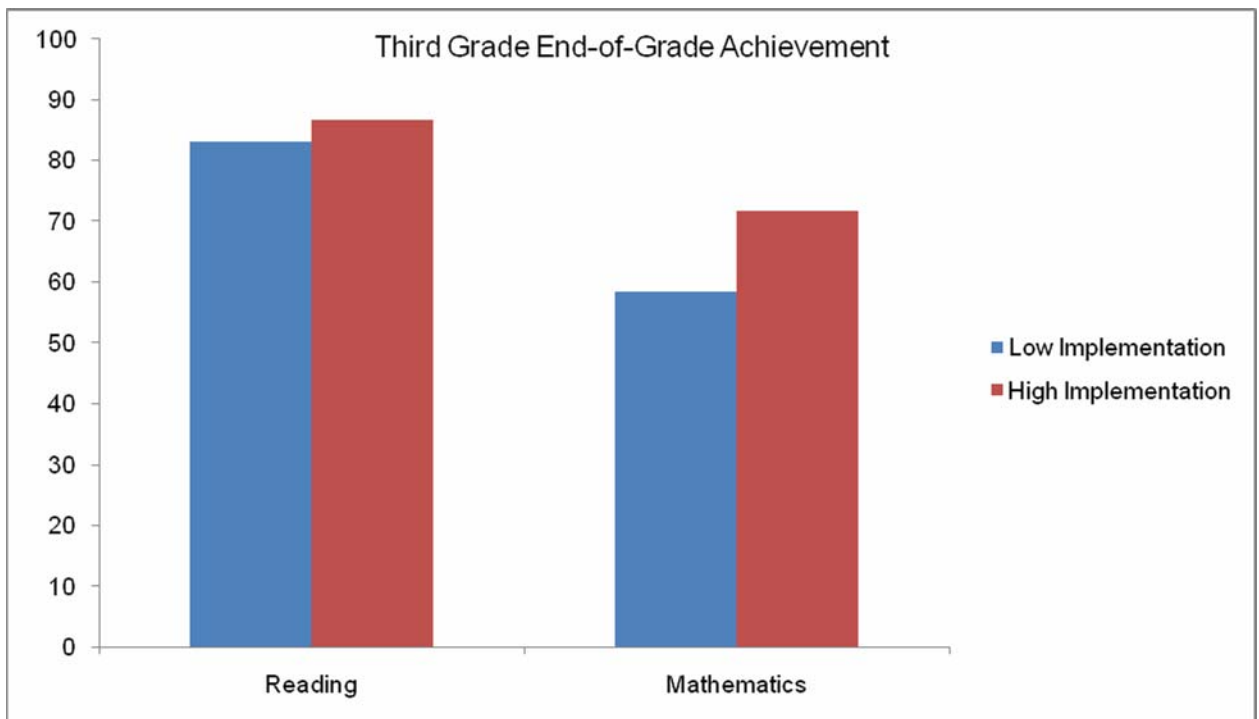
End-of-Grade Reading and Mathematics scores were available for schools evidencing low levels ($n=5$) and high ($n=7$) levels of implementation of PBIS as reflected in SET scores (see Figure 10). While performances were not statistically significant across the groups (see Table 2), effect sizes reflecting practical differences were large (.55 for reading and .98 for mathematics).

Table 2

Means and Standard Deviations, and Effect Sizes for Reading and Mathematics Achievement

Implementation	Reading		Mathematics		Effect Size
	Mean	SD	Mean	SD	
Low ($n=5$)	83.10	3.77	58.34	6.58	.55
High ($n=7$)	86.73	7.28	71.70	15.27	.98

Figure 10



To What Extent has Training and Technical Assistance Improved Capacity?

With the addition of the Positive Behavior Intervention & Support Regional Coordinators, implementation has increased throughout the state. While 296 schools were in some stage of implementation by the end of 2005-06 school year, 252 new schools (including sixteen new school systems) received training during the 2006-07 school year. The PBIS Regional Coordinators worked with the trainers/coaches in their regions to coordinate training for new schools and to provide support and assistance to the trainers and school teams, as needed. They had regular meetings with the trainers/coaches in their regions and will collect all information about PBIS implementation regionally. A new full time Positive Behavior Intervention & Support Consultant position has been funded by the North Carolina Legislature for the 2007-2008 school year.

Is Implementation Affecting Outcomes?

In a recent study, Lassen, Steele, and Sailor (2006) used relationships between ODRs and SET scores to evaluate the effects of PBIS in an urban middle school. They found reductions in ODRs and suspensions and increases in standardized math and reading scores over time. They also reported a significant relationship between student problem behavior and academic performance and a positive relationship between treatment fidelity and reductions in problem behavior.

Differences in ODRs for schools in North Carolina that met and did not meet SET expectations (80/80 Total/Expectations Taught scores) are illustrated in Figure 11. Small differences evident during initial years of statewide implementation (2004-2005) increased greatly in recent years, consistently favoring schools with high levels of implementation support.

Differences were also evident in levels of behavior risk in schools that met SET criteria for high levels of implementation of Positive behavior intervention & support compared to schools that did not meet these standards (see Figure 12). Twice as many students were at some or high risk in schools with low levels of implementation compared to schools with expected or higher levels of SET Total and Expectations Taught evidence.

Figure 11

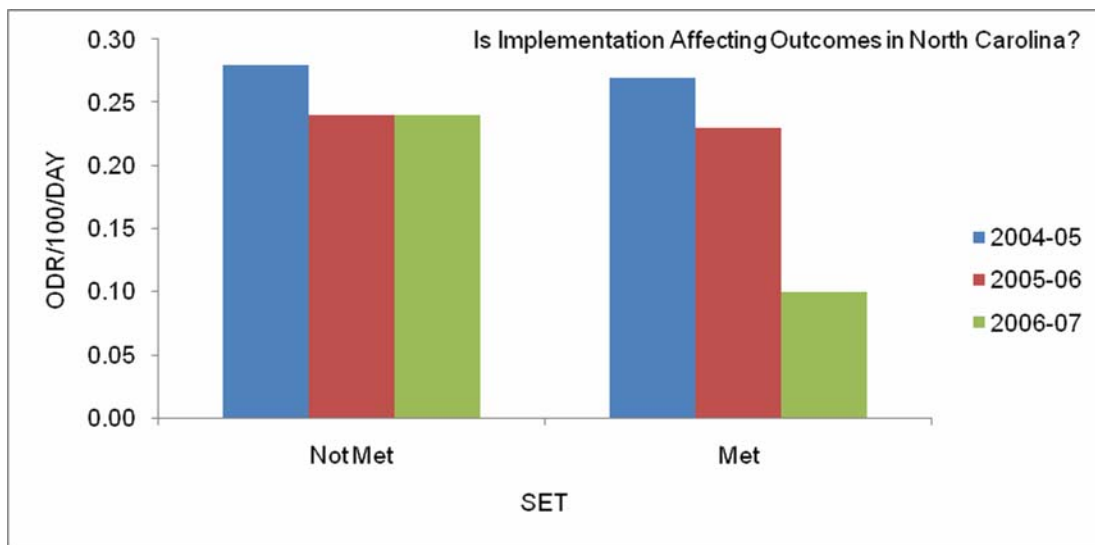
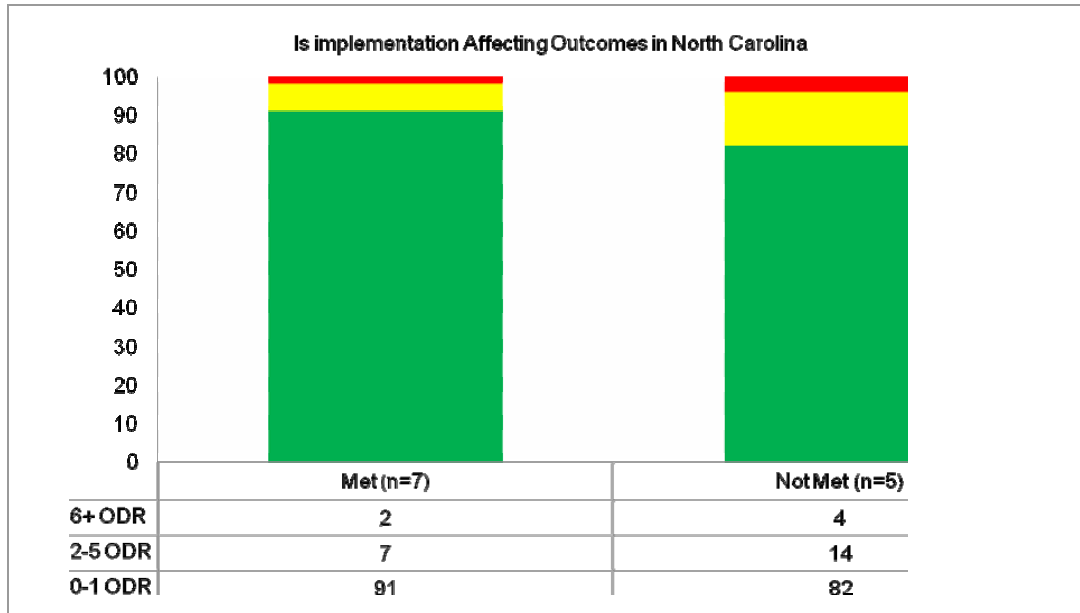


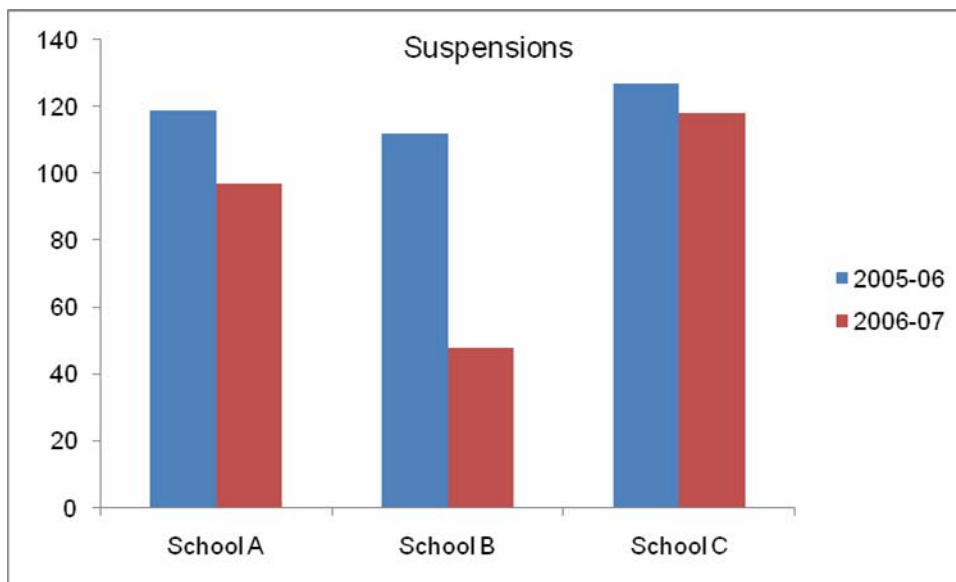
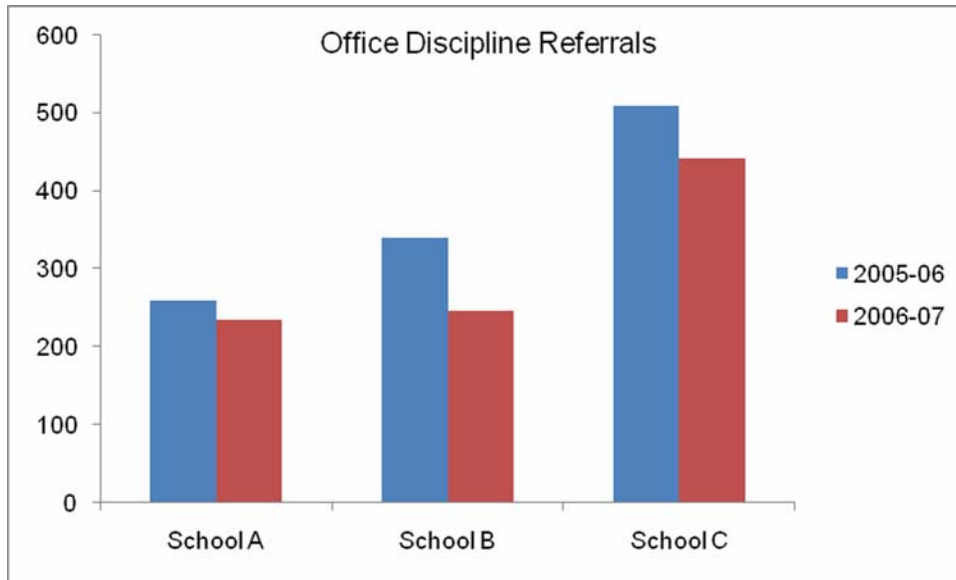
Figure 12



To What Extent have Changes Resulted in Savings in Time Allocated to Problem Behavior?

Office discipline referrals and suspensions were compared in three elementary schools each with similar enrollments across two years of implementation; improvements were evident in each school for these markers of problem behavior (see Figure 13). Decreases in the number of office discipline referrals ranged from 10-28% across the schools and suspensions dropped 8% in one school and 18% and 57% in the others. Using conservative estimates of 30 minutes of teacher time and 20 minutes of administrator time for each office discipline referral, approximately 19 days of teaching time and 18 days of leadership time were gained in these schools as a result of the reduction in office referrals.

Figure 13



Lessons Learned and Directions for Change for Positive Behavior Intervention & Support in North Carolina

The initiative's mission is to provide leadership, professional development, resources, and on-going support in order for schools to successfully implement Positive behavior intervention & support in North Carolina. An active Positive Behavior Intervention & Support

Leadership Team has been established and meets regularly; it includes state and local representation as well as professionals from college and university professional development programs and community agencies and has a focused Action Plan. Regional Coordinators co-lead three subcommittees that are working on coaching and training, evaluation, and visibility and political support; and, with the addition of these positions, implementation has increased throughout the state.

- Currently, three-quarters of the counties in the state have at least one school participating in the North Carolina Positive Behavior Intervention & Support Initiative (see Figure 1). Steady growth has been evident (see Figure 2 and 3) and improving and sustaining the effort has been supported with continued funding (see Figure 4).
- Most of the elementary schools (77%) had SET Total scores of 80% or higher and similar scores were evident in fewer middle (44%) and high schools (25%). Average scores on SET subscales varied across levels of schools and were generally higher for elementary than middle and high schools (see Figure 5).
- Available office discipline referral data from schools implementing PBIS in North Carolina compare favorably with national averages (see Figure 6) and there has been a consistent decrease in suspensions across schools implementing PBIS in North Carolina over the past three years (see Figure 7).
- Levels of behavior risk (see Figure 8) evident in schools implementing PBIS in North Carolina were favorable and less than those evident in comparison schools not systematically implementing PBIS (see Figure 9).

- End-of-Grade Reading and Mathematics scores were available for schools evidencing low levels ($n=5$) and high ($n=7$) levels of implementation of PBIS as reflected in SET scores (see Figure 10). While performances were not statistically significant across the groups (see Table 2), effect sizes reflecting practical differences were large (.55 for reading and .98 for mathematics). Differences were also evident in levels of behavior risk evident in schools that met SET criteria for high levels of implementation of Positive behavior intervention & support compared to schools that did not meet these standards (see Figure 11).

Best practice suggests that comprehensive models of school reform include stages of change including identifying a solution, mobilizing a process of change, shepherding a program in schools and classrooms, and institutionalizing the effort as a permanent part of the school. Successful reforms employ innovative, research-based strategies and methods to enhance student learning, teaching, and school management, and they incorporate comprehensive designs in school functioning, instruction, assessment, management, and professional development. Continuous and effective professional development programs that include measurable goals and performance benchmarks for student achievement are the basis for comprehensive change processes. Making reforms happen in schools requires nurturing student, teacher, and administrator growth and involvement as well as parental involvement encouraging substantial levels of communication and engagement with families. Institutionalizing a comprehensive school reform program requires the coordination of material and human resources guided by data demonstrating positive outcomes that are feasible, acceptable, and real.

The North Carolina Positive Behavior Intervention & Support Initiative fares well when judged by these criteria. Recommendations for continuing supports, maintaining successful programs, and expanding implementations include the following:

- A comprehensive school reform program employs innovative strategies and proven methods for student learning, effective teaching, and school management that are based on evidence-based research and effective practices that have been replicated successfully in schools with diverse characteristics. *Recommendation: Continue the course established by prior years of successful state-wide implementation and begin to systematically collect evidence supporting comprehensive Positive behavior intervention & support initiatives.*
- A comprehensive school reform program employs a sound design with components for effective school leadership, instruction, assessment, classroom management, and parental involvement aligned with the curriculum, technology, and professional development to enable all students to meet challenging content and performance standards. *Recommendation: Continue the course established by prior years of successful state-wide implementation and expand cadre of local professional development consultants capable of matching program implementation to district and school expectations and standards.*
- A comprehensive school reform program employs high-quality and continual teacher and staff professional development and training. *Recommendation: Encourage closer collaboration among districts and schools implementing Positive behavior intervention & support and provide opportunities for participation in local, state, and national professional development meetings, workshops, and conferences.*

- A comprehensive school reform program employs measurable goals for student performance tied to a state’s challenging content and student performance standards, as those standards are implemented, and benchmarks for meeting the goals.

Recommendation: Encourage districts and schools implementing Positive behavior intervention & support to collect, analyze, and report common information reflecting important evaluation outcomes.

- A comprehensive school reform program employs systems of support within the school for administrators, faculty, and staff—and students. *Recommendation: Establish newsletter or other communication to share successes and inform districts and schools within the state of opportunities created by implementation of Positive behavior intervention & support programs.*

- A comprehensive school reform program employs systems for meaningful involvement of parents and local community in planning and implementing school improvement activities. *Recommendation: Encourage communities of support to be part of Positive behavior intervention & support implementations and provide opportunities for responsive districts to share “best practices” at local, state, and regional meetings.*

- A comprehensive reform program employs high-quality external support and assistance from a comprehensive school entity (which may be a university) with experience or expertise in school-wide reform and improvement. *Recommendation: Continue strong and positive collaboration with National Technical Assistance Center on Positive Behavioral Interventions and Supports and contribute to local, state, regional, and national events sponsored, coordinated, or otherwise managed by its partners.*

- A comprehensive school reform program employs a plan for systematically evaluating outcomes and disseminating “lessons learned” so others may benefit. *Recommendation: Encourage use of common data reports, systems and measures (e.g., School Profile, School-Wide Information System, School-Wide Evaluation Tool, Self-Assessments, Effective Behavior Support Survey, School Safety Report) as well as yearly analysis and summary of key indicators of progress.*
- A comprehensive school reform program employs continuous improvement processes and procedures. *Recommendation: Develop ongoing monitoring system to support state-wide Positive behavior intervention & support implementation.*

Effective school-wide systems of positive behavior intervention & support have seven components in common a) an agreed upon and common approach to improving behavior, b) a positive statement of purpose, c) a small number of positively stated expectations for all students and staff, d) procedures for teaching these expectations to students, e) a continuum of procedures for encouraging displays and maintenance of these expectations, f) a continuum of procedures for discouraging displays of rule-violating behavior, and g) procedures for monitoring and evaluation the effectiveness of the discipline system on a regular and frequent basis. North Carolina’s Positive Behavior Intervention & Support Initiative has made considerable progress in “institutionalizing” these components in increasing numbers of schools and school districts. Continuing the course will likely bring increasing benefits in efforts to impact learning environments in schools in order to support high student performance and reduce behavior problems.

Resources

- Ervin, R. A., Schaughency, E., Matthews, A., Goodman, S. D., & McClinchey, M. T. (2007). Primary and secondary prevention of behavior difficulties: Developing a data-informed problem-solving model to guide decision making at a school-wide level. *Psychology in the Schools, 44*, 7-18.
- Horner, R., & Sugai, G. (2007). Is Eugene, OR: University of Oregon, OSEP Center on Positive Behavioral Interventions and Supports. Retrieved December 1, 2007, from <http://www.pbis.org/researchLiterature.htm>
- Horner, R., Sugai, G., & Lewis-Palmer, T. (2005). *School-wide Positive behavior intervention & support evaluation template*. Eugene, OR: University of Oregon, Educational and Community Supports. Retrieved December 1, 2006, from <http://www.pbis.org/files/Evaluation%20Template%2010-05.doc>
- Horner, R.H., Sugai, G., Todd, A.W., & Lewis-Palmer, T. (2005). School-wide Positive behavior intervention & support. In L.M. Bambara & L. Kern (Eds.), *Individualized supports for students with problem behaviors: Designing Positive behavior intervention & support plans* (pp. 359–390). New York: Guilford Press.
- <http://www.ncpublicschools.org/positivebehavior/>
- <http://www.pbis.org/main.htm>
- Irvin, L.K., Tobin, T.J., Sprague, J.R., Sugai, G., & Vincent, C.G. (2004). Validity of office discipline referral measures as indices of school-wide behavioral status and effects of school-wide behavioral interventions. *Journal of Positive Behavior Interventions, 6*, 131–147.

- Lassen, S. R., Steele, M. M., & Sailor, W. (2006). The relationship of school-wide Positive behavior intervention & support to academic achievement in an urban middle school. *Psychology in the Schools, 43*, 701-712.
- Metzler, C. W., Biglan, A., Rusby, J. C., & Sprague, J. R. (2001). Evaluation of a comprehensive behavior management program to improve school-wide Positive behavior intervention & support. *Education and Treatment of Children, 24*, 448-479.
- North Carolina Department of Public Instruction. (2006). *Annual study of suspensions and expulsions 2004-2005*. Raleigh, NC: Author.
- Sugai, G., Horner, R.H., Sailor, W., Dunlap, G., Eber, L., Lewis, T., et al. (2005). *School-wide Positive behavior intervention & support: Implementers' blueprint and self-assessment*. Eugene, OR: University of Oregon.
- Sugai, G., Sprague, J. R., Horner, R. H., & Walker, H. M. (2000). Preventing school violence: The use of office discipline referrals to assess and monitor school-wide discipline interventions. *Journal of Emotional and Behavioral Disorders, 8*, 94-101.