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PBIS IMPLEMENTATION IN RURAL SCHOOLS IN THE U.S.

LAURA KERN, HEATHER PESHAK GEORGE,
NICHOLE FINTEL, & EMILY BATON

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Authors Laura Kern
Heather Peshak George

Nichole Fintel
Emily Baton

Purpose

Positive Behavioral Interventions and Supports (PBIS) continues to be an effective framework for addressing school discipline. As a tiered and preventive approach, over 25,000 U.S. schools are reporting implementation (Center on PBIS, 2022) resulting in positive outcomes, such as reductions in office discipline referrals (Bradshaw et al., 2010), improved discipline outcomes for students with disabilities (Gage et al., 2019), and improved school organizational health (Bradshaw et al., 2008). Fidelity of implementation is also linked to better outcomes; when schools have implemented the PBIS framework with fidelity, results have shown improved student outcomes (e.g., Bradshaw et al., 2015), including decreases in disciplinary events such as office discipline referrals (Freeman et al., 2019), out of school suspensions (James et al., 2019), and bullying (Waasdorp et al., 2012). Further, demonstration of positive impact has accelerated the adoption of the PBIS framework across the country in different school settings. The purpose of this evaluation brief is to provide an initial descriptive snapshot of the current status of PBIS implementation in rural schools.



Background

In its most recent data compilations on rural settings, the National Center for Education Statistics reported that approximately 19% of youth enrolled in public schools reside in rural locations (NCESa, 2015-16). Further, approximately 15% of these locales have more than 75% of students who receive free or reduced lunch (NCESb, 2018-19). As for teachers, 28% of rural schools reported vacancies in special education positions compared to 31% across the U.S., with 20% considering these positions very difficult to fill or were unable to fill the vacancy (NCESc, 2011-12). Similarly, a lack of parent involvement was reported in 20% of rural schools compared to 25% across all other school locales, and 26% of students in rural settings were reported as arriving to school unprepared to learn compared to 30% elsewhere (NCESd, 2011-12). These comparable data suggest a need to more closely examine the contextual challenges found in rural settings.

Rural schools across the U.S. have been implementing PBIS across preschool (e.g., Steed et al., 2013), elementary (e.g., Kelm & McIntosh, 2012; Leedy et al., 2004), middle (e.g., Robertson & Lane, 2007), and high (e.g., Johnson-Gros et al., 2008) school levels. Research has shown that implementing PBIS in rural settings has also contributed to positive school outcomes,

Rural Definitions

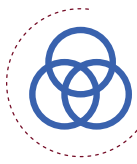
This database uses the NCES Locale Classifications and Criteria to define rural locations. For the purposes of this evaluation brief, all rural categories were collapsed into one “rural” category. The rural definitions are:

Rural – Fringe (41): Census-defined rural territory that is less than or equal to 5 miles from an Urbanized Area, as well as rural territory that is less than or equal to 2.5 miles from an Urban Cluster.

Rural – Distant (42): Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an Urbanized Area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an Urban Cluster.

Rural – Remote (43): Census-defined rural territory that is more than 25 miles from an Urbanized Area and also more than 10 miles from an Urban Cluster. (NCESf, 2022).

such as reductions in office discipline referrals (Curtis, Van Horne, Robertson, & Karvonen, 2010). Interestingly, rural schools have been found to be less likely to abandon PBIS compared to urban schools (Nese et al., 2016), and teachers have reported more satisfaction with PBIS implementation than their urban counterparts (McDaniel et al., 2018).



Considering that rural schools appear to be adopting the PBIS framework and realizing similar student outcomes despite the contextual differences of other locales, more information is needed. This evaluation brief aims to examine the current status of PBIS implementation as reported by rural schools across the U.S. Using the data reported to the Center on PBIS, we address the following questions:

1. How many rural schools are implementing PBIS?
2. What are some characteristics of rural PBIS schools?
3. How many rural schools are reporting PBIS implementation fidelity (e.g., BOQ, SET) and obtaining high fidelity scores?
4. What are the student discipline outcomes (e.g., number of office discipline referrals) in rural schools implementing PBIS?

Sample

The overall sample includes data reported to the Center on PBIS from several states across the U.S. from 2014-15, 2015-16, and 2016-

17. For most of the question we focused on 2016-17 as the most current year with demographic data for educational locales in the database. The data locale classification from the National Center for Educational Statistics (NCES) was used

to identify rural settings, collapsing fringe, distant, and remote into one combined category. This action maintained consistency with (a) the Center on PBIS database and (b) what educational systems typically use to identify rural locales (Gervedt, 2015, 2019).

According to the Center on PBIS database, there were 1056 rural schools reporting PBIS implementation in 2016-17. The average enrollment for each rural school was 445 students, with the largest being 1917 students. The range of schools reporting PBIS implementation across 44 states varied from one school (Arkansas, New Jersey New Mexico) to over 100 schools (Georgia, Michigan). It is important to note that only schools within states that reported data into the database during this timeframe were included in this analysis. While other states have reported PBIS activity in their rural schools (e.g., Florida), their implementation data were not included in the national database for this time frame. See Figure 1 for a map of the states reporting data on rural schools implementing PBIS.

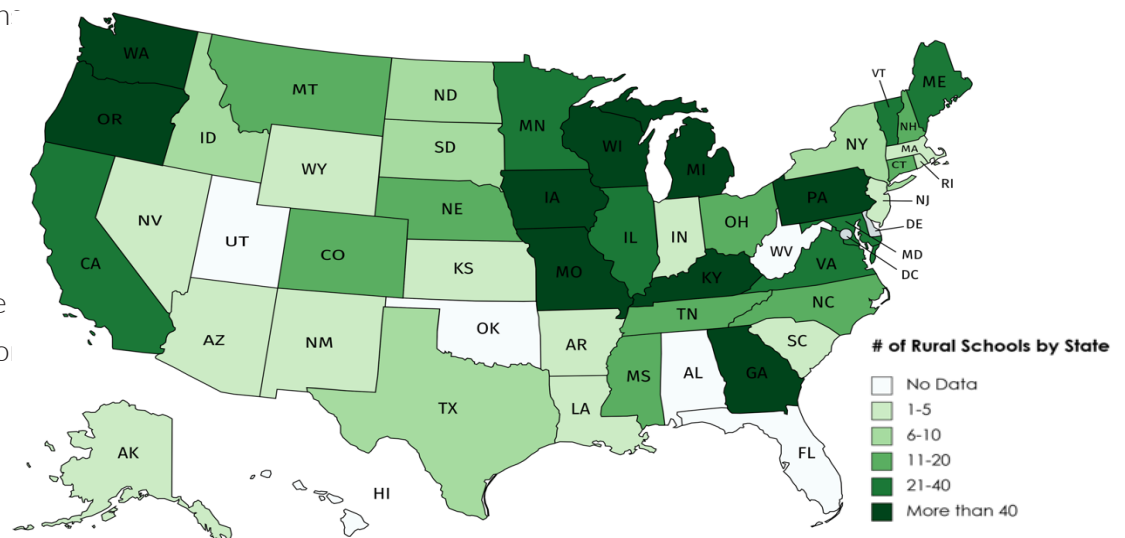


FIGURE 1. MAP OF STATES WITH RURAL SCHOOLS REPORTING PBIS IMPLEMENTATION (2016-17)



Results

1. How Many Rural Schools Are Implementing PBIS?

As depicted in Figure 2, the number of rural schools implementing PBIS increased from 866 in 2014-15 to 1056 in 2016-17. The percent of PBIS schools that are rural has remained stable, at 20% over the three years. This is similar to national percentages, in which rural schools made up 19% of all public schools in the United States in 2015-16 (NCESa, 2015-16). Additionally, rural schools were implementing PBIS at every school level, with the highest percentage (72.8%) reported in elementary schools (see Figure 3). It is important to note that these numbers represent the number of rural schools reporting data to the Center on PBIS and are likely an underestimate of actual PBIS implementation in rural areas.

FIGURE 2. PBIS SCHOOLS BY RURAL STATUS (2014-17)

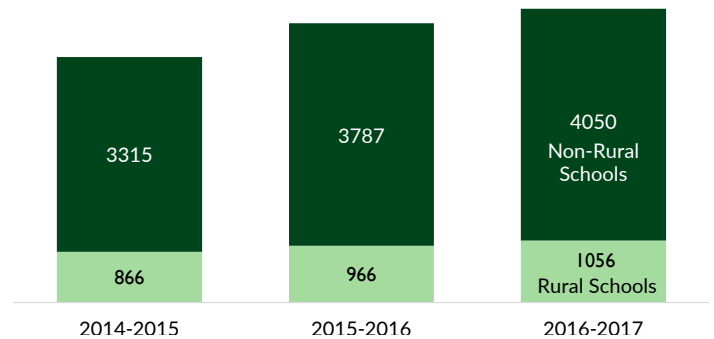
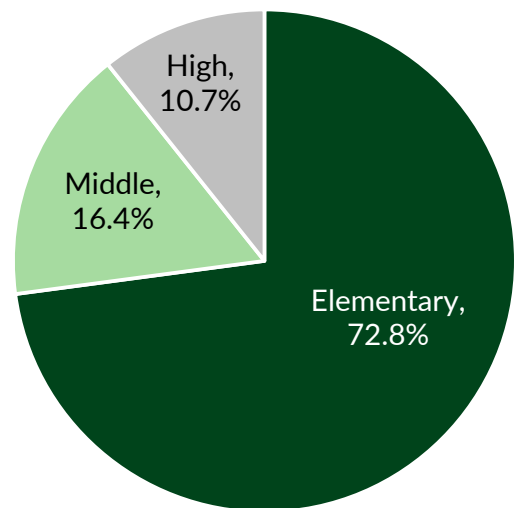


FIGURE 3. PBIS RURAL SCHOOLS BY TYPE (2016-17)

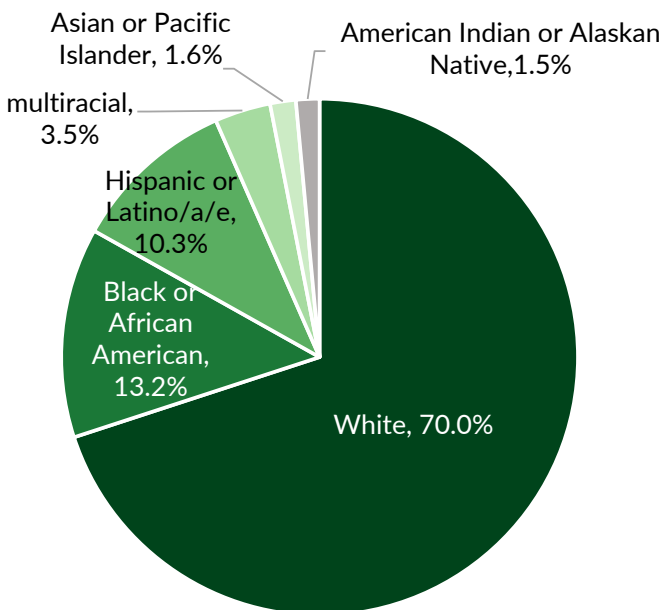




2. What Are Some Characteristics of Rural PBIS Schools?

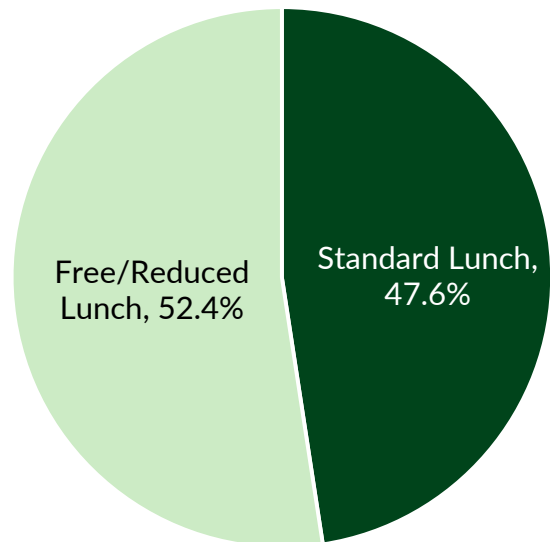
In the sample of rural schools reporting PBIS implementation in 2016-2017, 70.0% of students were White, 13.2% were Black or African American, 10.3% were Hispanic or Latino/a/e, 1.6% were Asian or Pacific Islander, 1.5% were American Indian or Alaska Native, and 3.5% were multiracial (see Figure 4). As way of comparison, when looking at a national sample from the 2017 U.S. Census that included all locales, 50.9% of students were White, 13.9% were Black or African American, 25.1% were Hispanic or Latino/a/e, 5.1 % were Asian/Pacific Islander, and 5.0% were listed Other (U.S. Census, 2017).

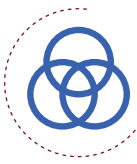
FIGURE 4. PBIS RURAL SCHOOLS BY RACE/ETHNICITY (2016-17)



In 2016-17, 47.6% of students in rural schools reporting PBIS implementation were eligible for free or reduced lunch (see Figure 5). In comparison during this time frame nationally, 52.3% of all students, regardless of locale, were eligible for free or reduced lunch (NCESe, 2016-17).

FIGURE 5. PBIS RURAL SCHOOLS BY FREE/REDUCED LUNCH ELIGIBILITY (2016-17)





3. How Many Rural Schools Are Reporting PBIS Implementation Fidelity (e.g., BoQ, SET) and Obtaining High Fidelity Scores?

In 2016-17, 62.5% of rural schools in the sample reported using at least one PBIS fidelity measure supported by the Center on PBIS. Fidelity measures included the Self-Assessment Survey (SAS), Tiered Fidelity Inventory (TFI), Benchmarks of Quality (BOQ), Team Implementation Checklist (TIC), and the School-wide Evaluation Tool (SET; see Figure 6).^{*} Of the schools that reported fidelity data to the

Center on PBIS database, 76.4% met high fidelity of implementation (see Figure 7).

^{}If schools completed more than one measure, the measure with the strongest psychometric properties was used in a cascading logic: SET>TFI>BoQ>SAS>TIC. This logic was modeled after the process used by McIntosh et al. (2018).*

FIGURE 6. NUMBER OF RURAL SCHOOLS SUBMITTING TIER 1 FIDELITY DATA BY MEASURE (2016-17)

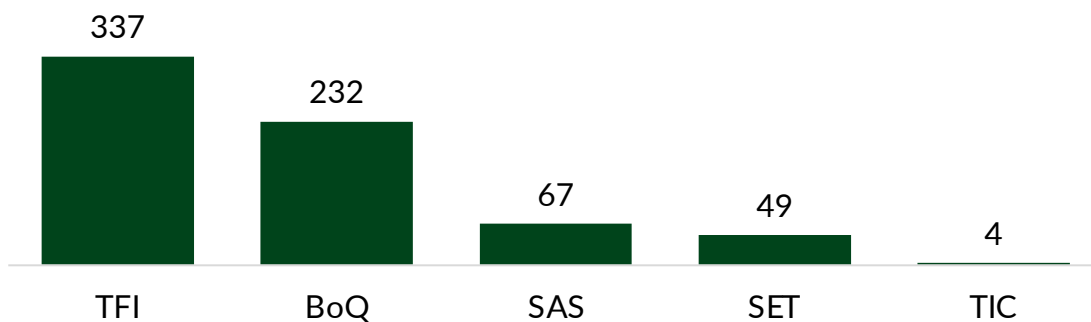
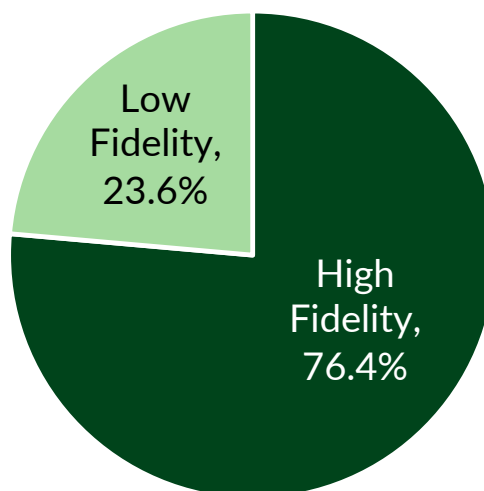


FIGURE 7. PERCENT OF PBIS RURAL SCHOOLS REPORTING HIGH AND LOW LEVELS OF FIDELITY (2016-17)

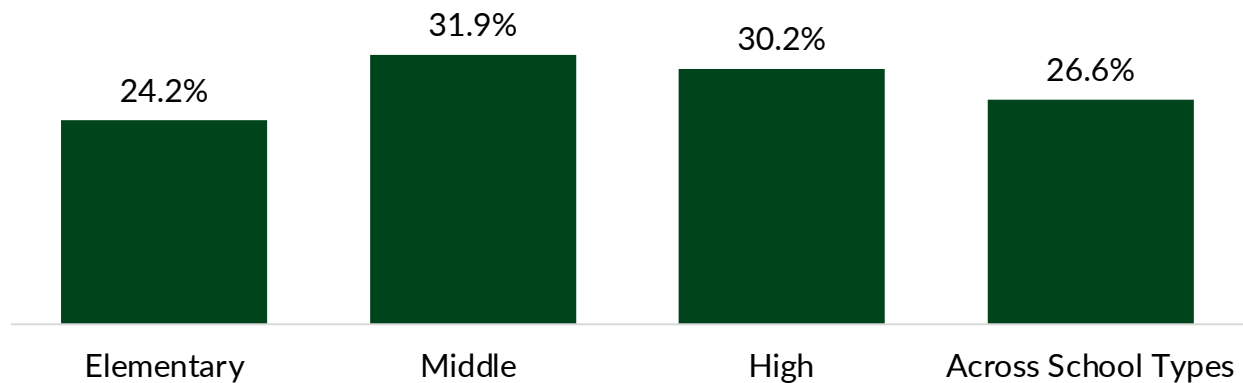




4. What Are Student Discipline Outcomes (e.g., Number of Office Discipline Referrals) in Rural Schools Implementing PBIS?

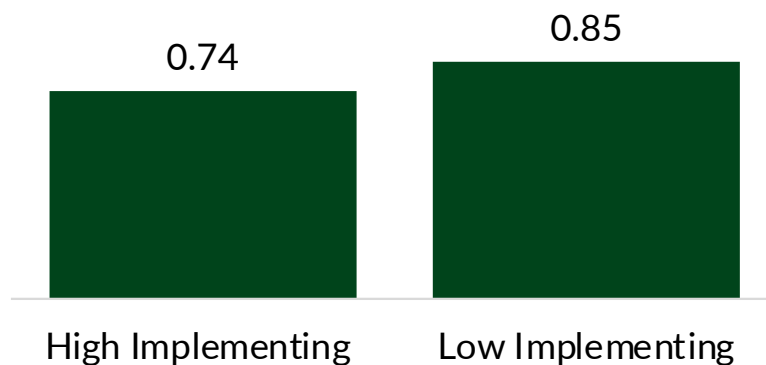
In rural schools implementing PBIS, 26.6% of students received at least one office discipline referral (ODR) in 2016-17 with 24.2% in elementary schools, 31.9% in middle schools, and 30.2% in high schools (see Figure 8).

FIGURE 8. PERCENT OF STUDENTS IN PBIS RURAL SCHOOLS RECEIVING AT LEAST ONE ODR (2016-17)



When considering fidelity of PBIS implementation in rural schools as displayed in Figure 9, lower implementing schools had a higher average rate of ODRs per 100 students per day (0.85 ODRs/100 students/day) than higher implementing schools (0.74 ODRs/100 students/day).

FIGURE 9. MEAN RATE OF OFFICE DISCIPLINE REFERRALS PER 100 STUDENTS PER DAY IN RURAL PBIS SCHOOLS BY TIER 1 IMPLEMENTATION LEVEL (2016-17)





Summary and Implications for Practice

This evaluation brief provides a picture of the status of PBIS implementation in rural schools across the United States with a more in depth look at one school year. According to the data reported to the Center on PBIS in 2016-2017, PBIS was being implemented in 1056 rural schools across 44 states. In this national sample during this time frame (excluding a few states who do not enter data into this database), rural PBIS schools reported more White students and fewer Hispanic students. Additionally, 62.5% of rural schools with implementation data reported fidelity using several measures, with 76.4% meeting high fidelity. Finally, rural schools implementing PBIS reported 26.6% of students receiving an ODR with a mean rate of 0.846 ODRs per 100 students per day.

The majority of states have schools in rural settings reporting PBIS implementation! **This initial evaluation demonstrated that rural schools both (a) struggle with systems issues and challenging behavior and (b) realize positive student outcomes when implementing PBIS with fidelity, similar to schools in other locales.**

As the data continue to show an upward trajectory of schools embracing the PBIS framework, it is important to recognize the unique needs of schools in different settings, especially those in rural areas.

Further, it remains critical that state and local education agencies (SEAs, LEAs) and schools continue to explore the specific strengths and needs of rural



schools implementing PBIS and consider ways to address the culture and context of these settings in PBIS implementation endeavors. Such efforts might address adaptability, fit, and sustainability to respond to challenges and promote strengths inherent to rural schools, while measuring additional outcomes (e.g., school organizational health, academic and social competencies), yet still retain high implementation fidelity. Results from this brief analysis can be used as a starting point to explore the extent to which PBIS is being implemented in rural schools and as a snapshot of location, characteristics, fidelity of implementation, and outcomes. This information can be used both to: (a) guide the development of training and technical assistance efforts and (b) highlight the need for more evaluation and research that considers the context of rural settings and the implementation of PBIS.



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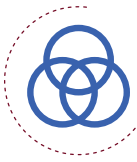
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Related Resources

1. Is Tier 1 PBIS Feasible and Effective in Rural, High Poverty Secondary Schools?
Initial Examination of a Model Demonstration
<https://www.pbis.org/resource/is-tier-1-pbis-feasible-and-effective-in-rural-high-poverty-secondary-schools-initial-examination-of-a-model-demonstration>
2. PBIS Implementation in Rural Schools: Voices from the Field
<https://www.pbis.org/resource/pbis-implementation-in-rural-schools-voices-from-the-field>
3. Building Momentum for PBIS Implementation in High Need Districts
<https://www.pbis.org/resource/building-momentum-for-pbis-implementation-in-high-need-districts>
4. Adapting PBIS Practices for Rural Settings: The Remote Instruction Strategy Matrix
<https://www.pbis.org/resource/adapting-pbis-practices-for-rural-settings-remote-instruction-strategy-matrix>
5. PBIS in Rural America: Addressing Barriers and Building on Strengths
<https://www.pbis.org/resource/pbis-in-rural-america-addressing-barriers-and-building-on-strengths>
6. PBIS Academy Model Demo Brief: Impact of Statewide Support Model on High-Needs Schools
<https://www.pbis.org/resource/pbis-academy-model-demo-brief-impact-of-statewide-support-model-on-high-needs-schools>
7. Working Smarter, Not Harder in Rural Schools
<https://www.pbis.org/resource/using-a-pbis-framework-working-smarter-not-harder-in-rural-schools>
8. Remote Instruction Strategy Matrix for Collaboration with Families
<https://www.pbis.org/resource/remote-instruction-strategy-matrix-for-collaboration-with-families>

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