According to new federal data, public schools in the U.S. suspended significantly fewer students in 2014 than they did in 2012. Across the nation, 2.8 million K-12 students were suspended from public schools during the 2013-2014 school year—that represents a drop of nearly 20 percentage points compared with the 2011-2012 school year (U.S. Department of Education, 2016). However, glaring racial gaps still persist in the way students are disciplined. Of these 2.8 million students who received suspensions, 1.1 million of them were black students, 600,000 were Latino students, 660,000 students have a disability, and 210,000 were English Language Learners (ELL) (U.S. Department of Education, 2016). These groups of students are all significantly over-represented among those who are suspended, compared to their proportion in the general population. Also, black public preschool children are 3.6 times as likely to receive one or more out-of-school suspensions when compared with white preschool children (U.S. Department of Education, 2016).

When it comes to discipline disparities, data from Minnesota parallels the nation as a whole. For the 2014-2015 school year, there were 41,743 total disciplinary actions documented for the state of Minnesota (Minnesota Department of Education, 2016). A disciplinary action is defined as an out-of-school suspension for one day or more, expulsion, or exclusion (Minnesota Department of Education, 2016). Black students accounted for 15,881 of these disciplinary actions, which is nearly two-fifths (38%) of all documented disciplinary actions, whereas they make up only 10 percent of the total student body. American Indian students are also over-represented among students who were disciplined. See Figure 1 below.

Based on previously documented outcomes, Positive Behavior Interventions and Supports (PBIS) is a potential solution to reducing the discipline disparities gap between white students and students of color and between students who have a disability and those who do not have a disability. The core concept of PBIS is teaching behavioral expectations in the same manner as any other academic subject. Rather than telling students what not to do, the school staff focus on teaching and rewarding preferred, positive behaviors. In addition to decreased ODRs, PBIS has been associated with outcomes such as decreased suspensions and expulsions, improvement in school climate, and positive academic achievement (Mathews et al., 2013). The continuation of these positive student outcomes depends on sustained PBIS implementation (Fixsen et al., 2005).
The purpose of this case study is to explore the findings from the research literature to increase our understanding of the impact PBIS may have on reducing discipline disparities by race/ethnicity and disability status, and to provide school PBIS teams with concrete resources that they can use to help reduce discipline disparities in their schools. Finally, this report provides recommendations to the Minnesota PBIS State Leadership Team (SLT) regarding possible changes to the PBIS training process that could impact discipline disparities for schools in Minnesota.

Of note, throughout this case study, we use the terms “disparity” and “disproportionality.” We would like to acknowledge the difference in these two terms--“disparity” highlights an inequity while “disproportionality” is defined as a statistic or number that is “not proportional.” In some cases, there are technical definitions of what it means to have a disproportionality (for example, a state or school district must have a disparity that exceeds some predetermined threshold before it can be classified as disproportional). The research we reviewed uses these terms inconsistently. Therefore, for the purposes of this case study, we use each authors’ original wording throughout to accurately portray their research. Their definitions may or may not align consistently with the technical definitions of “disparity” and “disproportionality” used by the Minnesota Department of Education or other entities, and at times, these words may be used interchangeably.

Key findings

As previously mentioned, PBIS is an evidence-based practice that has been shown to reduce the overall number of discipline incidents in schools that implement the initiative with fidelity. Two randomized control trials found that schools that implemented PBIS with fidelity had reduced office discipline referrals (ODRs) across all student demographic groups compared with schools that did not implement PBIS (Horner et al., 2009; Bradshaw et al., 2010).

Although PBIS has been linked to overall reductions in ODRs (Horner et al., 2009), and the initiative may be presented by some (Curry-Stevens et al., 2013) as a remedy to the discipline disparities between white students and students of color and also for students with disabilities, there is not a strong body of research evidence to suggest that all schools that implement PBIS with fidelity reduce discipline disparities.

The results of the literature review are mixed: some studies found that PBIS was not correlated with reducing discipline disparities while others found that PBIS is associated with reduced disparities in discipline. For example, a few studies examined discipline data collected during one academic year in schools implementing PBIS and found that black
students had significantly greater odds of receiving and ODR than white students (Bradshaw et al., 2010). Another study of schools that had used PBIS for at least one year found that both in elementary and middle schools, black students were statistically more likely to receive an ODR than their white peers. Within the elementary schools in particular, black students were 2.19 times more likely than their white peers to receive an ODR (Skiba et al., 2011).

Some studies indicated that while disciplinary actions decreased for all student populations, yet discipline disparities remained. For example, one study found that overall ODRs across racial/ethnic groups decreased in 69 schools that were implementing PBIS over the course of three school years, however disproportionate discipline outcomes persisted between white students and students of color during this time period (Vincent et al., 2009).

Other research indicates that PBIS is a specific contributor to reducing discipline disparities. For example, one study examined schools that implemented PBIS and observed statistically significant decrease in disproportionality in number of ODRs between black and white students, whereas schools that did not implement PBIS saw the disparity between black and white students increase over the duration of the study (Vincent et al., 2011). Other study results exhibited larger decreases in suspensions for black students compared with the overall student population when PBIS was implemented (Scott, 2001). In a case study of culturally responsive PBIS implementation in a high school with a high Indigenous student population, the number of suspension days were reduced from 689 days before PBIS implementation to 395 days within two years (Greflund et al., 2014).

In sum, some studies were able to exhibit that PBIS contributed to reducing discipline disparities while others were not. Researchers highlight the specific components of PBIS that contribute to success in reducing discipline disparities. Two key predictors of decreased discipline disparities include regular use of data for decision-making and implementation of classroom SWPBIS systems (Tobin & Vincent, 2011). If these two strategies are present in a school’s PBIS program (which they will be for schools that are implementing with fidelity), the school is likely to experience a reduction in discipline disparities. There is much more research that is needed to determine if and how implementing PBIS in a school decreases discipline disparities.

Practical applications, tools, and recommendations to support schools that are implementing PBIS to specifically address discipline disparities are presented throughout the remainder of this case study.

**Strategies from the literature**

Even though more research is needed regarding the impact PBIS has on reducing discipline disparities, school teams can apply some of the strategies outlined in the research literature to help their school and their PBIS initiative to address discipline disparities directly. The following sections also provide links to guides and resources from the University of Oregon to help schools implement these different approaches.

**Strategy 1: Use the PBIS framework as a foundation**

Some researchers acknowledge that implementing PBIS with fidelity is not the only solution for eliminating discipline disparities, however, they believe the initiative should be used as a foundation to start this work. McIntosh et al. (2014) state that no single strategy will be sufficient to produce substantive and sustainable changes to discipline disparities. Multiple approaches are needed to address this issue.

Although multi-faceted solutions to reducing discipline disparities are needed, implementing PBIS is a good starting point for schools. Some researchers recommend PBIS as a solution to reduce excessive discipline and to remain aware of disparities. PBIS can be adapted to specific school and community cultures, and provides the systems-level capacity for schools and districts to implement and monitor additional interventions to reduce disparities (Curry-Stevens et al., 2013; McIntosh et al., 2014). Researchers also point out that schools should use PBIS to teach students and school staff how to resolve conflicts in
a manner that promotes a mutually respectful, positive school climate (Curry-Stevens et al., 2013).

Since PBIS is a systems framework, schools that implement PBIS have license to be creative and try different specific strategies that fit within that framework that work best for their school and community, including culturally responsive approaches and/or approaches to specifically address disparities. The focus on establishing a positive school culture, identifying and teaching clear expectations, and developing systems for acknowledging positive behaviors may be particularly effective to reducing the formation and operation of negative stereotypes that contribute to disproportionate disciplinary outcomes (Lai et al., 2013; Tobin & Vincent, 2011).

Strategy 2: Use disaggregated discipline data to inform decisions

Using data is a core principle of PBIS and is critical to successful implementation in a school setting. Specifically, research suggests that entering, compiling, and subsequently using disaggregated discipline data by student race/ethnicity, gender, and disability status may help to reduce discipline disparities (McIntosh et al., 2015; Jewell, 2012; Vincent, 2008). These data should be discussed at monthly school team meetings, and built into district and state accountability systems (McIntosh et al., 2015).

Using risk ratios and risk indices are another helpful way to assess discipline disparities and examine the equity of outcomes between different groups (McIntosh et al., 2015). Risk ratio calculation varies slightly and is dependent upon the type of data being analyzed, but is typically represented as the risk of ODR/suspension for the racial/ethnic group in question divided by the risk of the comparison group (U.S. Department of Education, 2016). According to the U.S. Department of Education (2016), a calculated risk ratio greater than 1.0 of a racial/ethnic group indicates overrepresentation, while a risk ratio less than 1.0 indicates underrepresentation. Instructions on how to calculate and use risk ratios and indices can be found in the resources provided on the next page.

Although many behavioral data systems compile reports based on race/ethnicity, gender, and disability status, relatively few schools use these disaggregated discipline data to make decisions (Vincent, 2008; McIntosh et al., 2014). The number of schools using one nationally available data system, the School-Wide Information System (SWIS), that are entering race/ethnicity data, and viewing the race/ethnicity report have each increased over time, however, just 31 percent of schools that use SWIS view the race/ethnicity report. Of schools that enter race/ethnicity data (n=5,779), nearly half (48%) view the ethnicity report. See figure 2 below.

2. SWIS SCHOOLS AND ETHNICITY DATA

![Graph showing data on SWIS schools and ethnicity data](image-url)
Specifically, more research is needed to understand what schools do with these race/ethnicity reports and why schools do not use disaggregated data reports by race/ethnicity and disability status. This research would help to inform barriers and areas of support so more schools that use PBIS and SWIS would use this feature to improve their PBIS initiatives and help to reduce discipline disparities.

Resources for schools
- Using Discipline Data within SWPBIS to Identify and Address Disproportionality: A Guide for School Teams
- Using Data to Identify and Address Racial Disproportionality
- Problem-solving worksheet and action planning tool

Strategy 3: Use implementation fidelity data to identify areas of need

School teams have a variety of tools at their disposal to evaluate PBIS implementation fidelity. These are the Team Implementation Checklist (TIC), Self-Assessment Survey (SAS), Schoolwide Evaluation Tool (SET), the Benchmarks of Quality (BoQ), and the Tiered Fidelity Inventory (TFI). In Minnesota, schools participating in cohort training are currently using the TFI, while schools out of training have the choice of completing the TFI, BoQ, and/or SET. Besides using discipline data, it is important that schools use their PBIS implementation fidelity data to identify areas for improvement and to determine what, if anything, can be done within their PBIS initiative to address race/ethnicity or disability status disparities.

However, these tools were designed to measure overall PBIS implementation and do not focus specifically on disparities. Barclay (2015) hypothesizes that implementation fidelity of PBIS may not address the key factors that develop and maintain inequitable disciplinary practices. He suggests that future studies should include analysis of PBIS components to evaluate the degree to which the implementation fidelity of these particular elements relate to more equitable discipline practices.

Authors in another study suggest modifying the SET evaluation—which assesses implementation fidelity through interviews with the school administrator and other staff, and reviewing signage and other PBIS materials (school handbook, school improvement plans, etc.) to be culturally responsive to the school and community as a whole (Swain-Bradway et al., 2014). Some possible changes include adding items to measure signage posted in two languages (other than English) spoken by subgroups within the student population, or checking in on documentation that staff, students, and families have been involved in reviewing and developing schoolwide expectations on an annual basis. Another suggestion is that students, staff, and families are involved in reviewing acknowledgement systems annually (Swain-Bradway et al., 2014).

In response to this research, the Office of Special Education Programs (OSEP) at the University of Oregon has drafted a Cultural Responsiveness Companion that is aligned with the TFI. This tool identifies 15 critical features of behavior support, describes the “big idea” behind each feature, introduces a cultural responsiveness component, and also provides examples, activities, and resources for schools to use. The five areas that the developers focus on are: identify awareness of staff, students, and community; voice; supportive environment; situational appropriateness; and using data for accountability. The process for using the Cultural Responsiveness Companion is very similar to what school teams currently do for the TFI: teams are encouraged to complete the TFI and identify areas of priority based on their results. From there, they can refer to related sections of the Companion and use it to develop an action plan. Teams are also encouraged to complete a self-assessment for progress monitoring. A copy of the guide and a companion presentation can be found below.

Resources for schools
- PBIS Cultural Responsiveness Companion
- PBIS Cultural Responsiveness Companion (companion presentation)
**Strategy 4: Involve family and community**

Involving family and community is the most commonly mentioned recommendation throughout the literature with regard to making PBIS more culturally responsive. Including families and students that represent all demographic groups in the school and the community is beneficial to creating meaningful and relevant PBIS systems that are representative and inclusive (Swain-Bradway et al., 2014). By building on knowledge and strengths students bring with them from their homes and cultural communities, a culturally responsive practice validates who students are and sets universally high expectations for behavior and learning (McIntosh et al., 2014).

School rules, expectations, and corrective behaviors should be developed collaboratively with families and the community at large so these values reflect the cultures of the school’s student population. Ensuring that definitions for discipline and procedures are clearly defined and in alignment with community values can help to reduce the ambiguity in discipline decisions, and help to decrease the negative effects of unconscious biases (Lai et al., 2013). Also, the development and teaching of behavioral expectations must clearly align and match the cultural expectations and ways of being that students bring with them from their homes and communities (Banks & Obiakor, 2015). This involves incorporating cultural knowledge from students and their families in the development of school-wide plans, and adjusting school expectations to more closely reflect the values present within the school community.

Systematically including families and students in the school-wide PBIS initiative can be accomplished with a range of policies and practices within the PBIS framework that can be consistently implemented and measured for fidelity (Swain-Bradway et al., 2014), which include:

- Policies that allow for greater student and family involvement in the implementation process, including as members of the PBIS team
- Two-way communication between the school and families about PBIS, ODR data, and other important matters, using a variety of communication modes (verbal, email, newspaper, home-school notebooks, etc.)
- Flexible data systems that incorporate regular planned surveys and/or perception checks for students and families. McIntosh et al. (2016) designed a student perception survey for all grade levels that assesses student input about their PBIS program. A link to this tool can be found below.
- Other routine, documented practices that include student and family input into the schooling process (potlucks, coffee with the principal, family nights at school, etc.).

Many tools can be found in the PBIS Cultural Responsiveness Companion (provided above). These basic policies and practices will enable a school-wide team to begin building knowledge of the cultural perspectives of students, families, community members, and other stakeholders (Swain-Bradway et al., 2014).

**Resources for schools**

McIntosh et al. (2014) created a practical guide for schools to prevent and reduce discipline disproportionality. The five point plan has the following key components: use engaging academic instruction to reduce the achievement gap; implement a behavior framework that is preventive, multi-tiered, and culturally responsive; collect, use, and report disaggregated discipline data; develop policies with accountability for disciplinary equity; and, teach neutralizing routines to address implicit bias. This guide and supplemental materials can be found in the links below.

- [Recommendations for Addressing Discipline Disproportionality in Schools. (The 5-point plan)]
- [Examples of engaging instruction to increase equity in education]
- [Key elements of policies to address discipline disproportionality: a guide for district and school teams]
- [Student perception survey]
- [Student input and satisfaction survey]
- [Family partnerships]
Strategy 5: Culturally responsive teacher training

Many researchers have attempted to determine how and why discipline disparities exist. Some posit that disparities may result from race, class, and cultural disconnects between mostly white teachers and students of color (Contractor & Staats, 2014; Skiba et al., 2002). Other authors have concluded that discipline disparities begin at the classroom level due to implicit biases of teachers (Skiba et al., 2011). Other authors assert that structural variables (e.g., school demographic characteristics, poverty, level of parental education), as well as implicit and explicit bias play a role in whether or not particular interventions are effective in reducing discipline disparities (McIntosh et al., 2014).

Culturally responsive teacher training may help reduce disconnects between teachers and students. This could include topics such as the importance of cultural knowledge and sensitivity, self-awareness, white privilege/dominant culture, learning about the specific cultures within a school building, learning how to address implicit biases (see link below), and the role these things play in a school setting. Incorporating these types of trainings into a school setting and the PBIS framework demonstrates that district and school-level staff are actively committed to addressing racial/ethnic, socioeconomic, and ability status disparities in discipline. Educators can then use their increased understanding of the lived experiences of students in the design of PBIS and other specific interventions (Dupper & Bosch, 1996, Vincent et al., 2011, Banks & Obiakor, 2015).

Schools and districts should allow time and planning for professional development to enhance staff members’ self and cultural awareness and to improve their use of culturally responsive practices—this can be done by internal coaching, support for problem solving, and discussion of discipline issues related to cultural differences (Vincent et al., 2011). PBIS teams can also support school staff in reflecting upon the ways their cultural perspectives affect classroom instruction as well as classroom and school-wide behavioral management (Banks & Obiakor, 2015).

**Resources for schools**

- Reducing the Effects of Implicit Bias in School Discipline

**Recommendations**

Based on these results of this literature review about discipline disparities, the Minnesota Department of Education and the PBIS Statewide Leadership team (SLT) should consider the following strategies to support PBIS schools in their efforts to reduce discipline disparities in Minnesota schools.

Conduct further research on discipline disparities and the impact of PBIS in Minnesota schools. The SLT, with the help of Wilder Research (or another research consultant), should conduct an in-depth, quantitative study of Minnesota schools to assess discipline disparities in schools and districts that are implementing various components of PBIS or the entire framework with fidelity, and compare them with non-PBIS schools.

This examination of quantitative discipline outcomes data would be enhanced with the collection of qualitative data, using key informant interviews or focus groups of PBIS teams and administrators across PBIS and non-PBIS schools in Minnesota. This study will help the SLT to learn more about the following:

- Specific strategies schools are using to reduce discipline disparities in their building
- What type of data schools use to drive these decisions, and the extent to which they use this data for decision-making
- Whether schools are succeeding in reducing disparities over time
- Ways to help to support schools in their efforts to close the discipline disparity gaps (e.g., tracking and reviewing disaggregated data, sharing this data with staff and communities, cultural responsiveness trainings, etc.)
Encourage data system trainers and SWIS facilitators to teach schools how to compile disaggregated data reports from their data systems. The SLT should work with representatives from SWIS and other data system vendors (TIES, Skyward, etc.) to include the ability to compile reports based on disaggregated data by race/ethnicity, disability status, gender, and other demographic variables of interest in their training.

The SLT should emphasize that collecting and using disaggregated discipline data is something that all schools should know how to do, that schools are expected to do this, and they should be looking at this as a part of their PBIS program. The SLT should encourage the Regional Implementation Projects (RIPs) and trainers to teach new school teams how to compile disaggregated data reports using their system either at training, data days, or coaches meetings. The SLT should also encourage PBIS trainers to discuss using disaggregated data at training so schools can have a clear picture of discipline disparities within their schools.

**Include disaggregated ODR data by race/ethnicity, disability status, and other demographic variables of interest in school status reports (when available).** The SLT should consider including disaggregated ODR data in the mid-year and annual school status reports to demonstrate that using and examining this data and closing the discipline disparities gap is a priority. This would also allow for the SLT and the RIPs to track successes, challenges, and progress by individual schools and in the aggregate. Potentially, this could also contribute to learning and mentoring initiatives for PBIS schools so they could acquire strategies that have worked for other schools and use these to strengthen their own efforts toward reducing discipline disparities. (This could become part of the statewide PBIS recognition system and/or be highlighted at the PBIS Summer Institute, etc.)

**Examine the cultural competence and implicit biases of the SLT in order to better support equity issues in schools across Minnesota.** The SLT should consider its own perspectives that it brings to the table regarding privilege, biases, and attitudes on race, culture, and discipline. The SLT should also consider the representation on the SLT of people of color and people with disabilities, as well as people who make disparities and cultural responsiveness an explicit focus of their job. In order to assess these types of things, the SLT could complete an assessment of cross-cultural knowledge and cultural competence, such as the Intercultural Development Inventory (IDI) or another similar tool. A trained IDI facilitator could work with the SLT as a team and individually to interpret scores and set goals. The SLT could also consider participating in training on implicit biases or other equity and cultural competency trainings to increase group members’ knowledge in these areas. This may also help the RIPs to identify and recommend trainings and other strategies to school teams in their region.

**Start the conversation with others involved in PBIS at the national level to encourage more research.** Many members of the SLT are involved with PBIS at the national level. Perhaps these group members could use their influence, connections, and ideas to discuss the feasibility of conducting more and better research specifically focused on PBIS and discipline disparities. Minnesota schools that are implementing PBIS could be part of this research, and the Minnesota Department of Education and the SLT could lead the way in advancing this body of research.
References


