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**DISCIPLINE
DISPROPORTIONALITY
PROBLEM SOLVING:
A DATA GUIDE FOR
SCHOOL TEAMS**

CENTER ON PBIS

October 2023



Discipline Disproportionality Problem Solving: A Data Guide for School Teams

This practice guide is one of a set of resources for increasing equity in school discipline. The guides are based on the Center on PBIS's 5-Point Equity Approach, which has been shown to be effective in increasing equity in schools (link to <https://www.pbis.org/resource/centering-equity-within-the-pbis-framework-overview-and-evidence-of-effectiveness>). These 5 points include (a) using disaggregated discipline data, (b) ensuring that multi-tiered behavior frameworks are culturally responsive, (c) using engaging instruction, (d) developing effective policies, and (e) reducing implicit bias in discipline decisions. This guide addresses using discipline data.

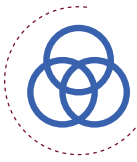
The recommendations and guides are available at <http://www.pbis.org/equity>

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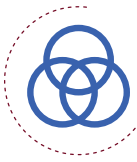
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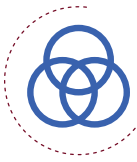
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Purpose

This practice guide can assist school teams in using exclusionary discipline data (e.g., office discipline referrals [ODRs], suspensions) to address inequities in school discipline based on race/ethnicity (although it can also be used to address inequities for other groups, such as disability status, gender identity, or language status). We share a framework and steps for identifying the extent of discipline disproportionality, analyzing data to determine solutions, and monitoring the effectiveness of action plans to increase equity in school discipline.

Audience

This guide is designed primarily for school or district teams seeking to identify and address racial/ethnic inequities in school discipline, regardless of whether they are implementing PBIS. It is critical that this work is completed by teams instead of individuals working on their own.

Background

Racial/ethnic disproportionality in school discipline is both long-standing and widespread across the US. Although there is some evidence of disproportionality for American Indian/Alaska Native (Gion et al., 2018) and Latino/a/e students (Austin et al., 2023), especially in high schools, Black or African American students are consistently over excluded across all grade levels. In 1973, Black students were almost twice as likely to be suspended as White students. In 2017-18, Black students were more than three times as likely to be suspended (Losen et al., 2021). Black students continue to face increased risk for suspension



for minor behaviors and increased risk of school suspension and expulsion for the same behavior as students from other racial/ethnic groups (Barrett et al., 2021; Skiba et al., 2011). These differences have been found consistently across geographical regions of the United States and cannot be adequately explained by racial differences in behavior or the correlation between race and poverty (Bradshaw et al., 2010; Huang, 2020; Noltemeyer & Mcloughlin, 2010; Scott et al., 2019; Skiba et al., 2014). In other words, race continues to play a role in the likelihood a student will be excluded from the classroom or school, regardless of socioeconomic status or engagement in unwanted behavior. Similarly, students with disabilities are consistently at greater risk for exclusions, and Black students with disabilities are the most highly excluded group in schools (Losen et al., 2021).

Given the well-documented negative effects of exclusionary discipline on a range of student outcomes



(American Academy of Pediatrics Council on School Health, 2013; Noltemeyer et al., 2015), school and district teams should seek to identify whether there are racial/ethnic inequities in school discipline, and if so, implement a plan based on the specific patterns of data and then monitor the plan's effects on equity in school discipline. Moreover, Federal laws like Title VI of the Civil Rights Act of 1964 (1964) and the Individuals with Disabilities Education Act (2004), along with their implementing regulations (e.g., Discrimination prohibited, 2000; Disproportionality, 2016) prohibit schools from excluding students on the basis of their race/ethnicity. They also require schools to collect and report information about the race/ethnicity of students who are excluded in order to identify, understand the causes of, and address disproportionality and ensure equality of educational opportunity (Determining significant disproportionality, 2016; Girvan, 2020).

Using data for decision making is a powerful approach for improving both educational systems and student outcomes (Horner et al., 2018; McIntosh et al., 2018). In fact, research shows that schools with teams that regularly use data for decision making have greater

racial equity in school discipline (Tobin & Vincent, 2011). Collection and analysis of disaggregated discipline data serves to understand the need, identify areas for improvement, and determine appropriate action to ensure that efforts are effective. However, educators need specific guidance for using discipline data to assess and monitor equity in a way that is both effective and efficient (Girvan et al., 2019; McIntosh et al., 2020).

A Note on Different Types of Data

Although this guide focuses primarily on exclusionary discipline data (e.g., office discipline referrals, suspensions, expulsions), there are more types of data to review to improve educational equity. In fact, solely looking at discipline disproportionality can perpetuate biases that situate problems within students or groups instead of systems (Hetey & Eberhardt, 2014). In addition to examining discipline data, we recommend disaggregating and reviewing other sources of data, such as school climate survey results and access to services and supports.



Data Sources Needed

Assessing equity in school discipline requires a data system that can disaggregate data by student groups, such as race/ethnicity.

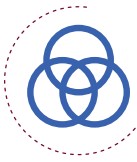
Required Features

- Consistent entry of office discipline referral (ODR) data and student race/ethnicity
- School enrollment by race/ethnicity
- Instantaneous access for school teams (not just district teams)
- Capability to disaggregate ODRs and patterns by race/ethnicity
- Capability to calculate risk indices, risk ratios, and rates by race/ethnicity

Recommended Features

- Standardized ODR forms and data entry
- ODR forms with a range of fields (e.g., location, time of day) and standardized (i.e., fixed) response options
- Clear operational definitions of unwanted behaviors
- Clear guidance in discipline procedures (e.g., administrator vs. staff managed)
- Instantaneous graphing capability
- Capability to disaggregate graphs by race/ethnicity
- Automatic creation of graphs of risk indices, risk ratios, and rates by race/ethnicity

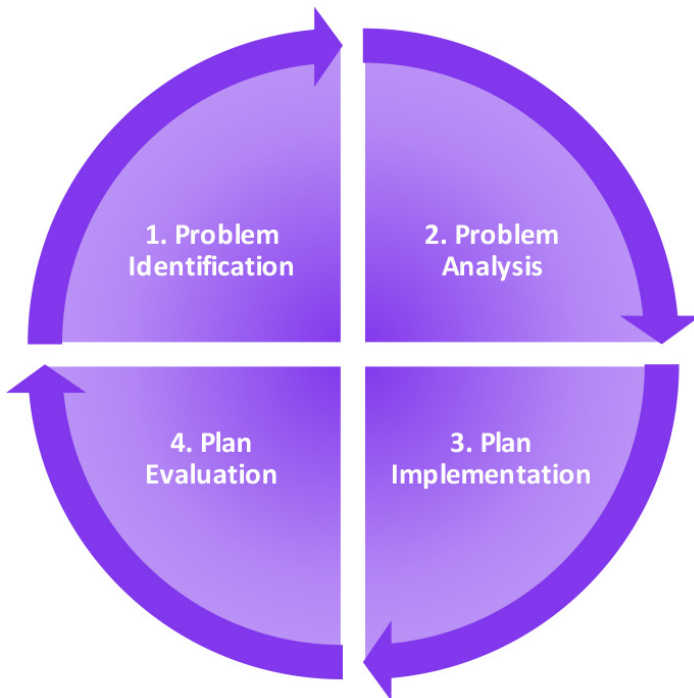
This guide will use the [School Wide Information System](#) (SWIS; Educational & Community Supports & PBISApps, 2023) for examples. However, any data system with the above features can be used with this guide.



A Process for Discipline Disproportionality Problem Solving

This guide is based on a 4-step problem-solving model commonly used in educational settings (as described by Blake & Barringer, 2024). This model provides an effective set of steps for using data for discipline decision making:

1. Problem Identification (“Is there an inequity problem?”)
2. Problem Analysis (“If so, why is it happening?”)
3. Plan Implementation (“What should we do?”)
4. Plan Evaluation (“Is our plan working?”)



This problem-solving model is familiar to school teams using Team-Initiated Problem Solving (TIPS; Newton

et al., 2012) in PBIS and other multi-tiered systems of support (MTSS). The 4-step problem-solving model described here works particularly well for use in equity decision making. However, we encourage teams using TIPS to continue with their existing TIPS processes for equity problem solving.

STEP 1: Problem Identification (“Is There an Inequity Problem?”)

The first step of the problem-solving model is Problem Identification. In Problem Identification, teams seek to identify whether a problem exists. Such problems are often described as differences between what is currently observed (performance) and what is expected or desired (goals). If a problem is identified, data are used to quantify the severity of the problem. For example, if 62% of students have 0 to 1 ODRs, but the goal is 80%, the team has identified a problem, with a difference of 18% between what is observed and what is expected. Defining problems with quantitative measures makes the process more objective and effective. It also allows more accountability for improvement.

The Problem Identification process can occur either whenever a problem is suspected or as part of a planned, recurring evaluation process (e.g., beginning of the year screening, summative end-of-year reporting). If a problem is identified, the team follows the next steps of the problem-solving model to build a plan and then cycles back to Problem Identification to see how the performance at the next measurement point relates to the goals.



Use for Disproportionality

Problem Identification for discipline disproportionality involves comparing rates of exclusions across groups of students (e.g., race/ethnicity), and it is more complex than problem solving with overall rates of exclusions. Disproportionality may be hidden if only one metric (i.e., a way of counting data) is used (Girvan et al., 2019). For example, one school may have equitable risks of ODRs (risk ratio) but very high rates of ODRs for all students (rates by group), whereas another school may have inequitable ODRs but very low rates of ODRs for all students. These scenarios suggest different problems within each school that need different solutions. As a result, it is important to use multiple metrics for Problem Identification instead of just one (IDEA Data Center, 2014).

Steps within Problem Identification

Regardless of the specific discipline data system, the following general steps are used in Problem Identification for disproportionality:

1. Select disproportionality metrics
2. Calculate metrics
3. Compare to a disproportionality criterion
4. Identify if there is an inequity problem
5. Set goals

STEP 1: SELECT DISPROPORTIONALITY METRICS

Although there are many options for measuring disproportionality (see Appendix A and the brief

[*Defining Disproportionate Discipline: Understanding Common Measures*](#)), we recommend calculating these metrics for each group of concern:

- Risk Index (absolute metric)
- Risk Ratio (relative metric)
- Rates by Group (absolute metric)

Types of Disproportionality Metrics

There are two main categories of equity metrics: absolute and relative metrics.

Absolute metrics are statistics that are calculated separately for each group. They are either raw numbers (e.g., counts of events or percentage of students) or discrepancy between the statistic for the group and an overall goal for all students (e.g., 80% of students with 0 or 1 ODRs). Absolute metrics usually tell us how much each group is exposed to exclusionary discipline. They can show how often members of a group are excluded, but not the differences between groups (i.e., disproportionality). They are most useful for goal setting and progress monitoring (Steps 1 and 4).

Relative metrics are comparisons of two absolute metrics (usually in ratios or simple differences between the metrics). They are a way to measure how different outcomes are between groups. Unlike absolute metrics, relative metrics don't show how many or how often students are excluded. They are most useful for identifying if there is an inequity problem (Step 1).

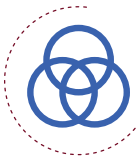
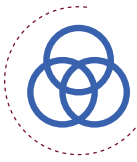


Table 1. Recommended Metrics for Assessing Discipline Disproportionality

Each metric accounts for varying numbers of student enrollment by race/ethnicity.

Metric	Definition	Type of Metric	Example	Best Use in Problem Solving
Risk Index	Percent of students in a group that receive one or more exclusions (e.g., ODR, suspension)	Absolute	39% of Latino/a/e student received ODRs last year	Problem Identification
Risk Ratio	Likelihood of an outcome (e.g., receiving ODRs) for one group in relation to a comparison group	Relative	Latino/a/e students are 1.04 times as likely as all other students to be issued ODRs	Problem Identification
Rates by Group	Total number of exclusions per student, calculated separately for each group	Absolute	Latino/a/e students received an average of 1.55 ODRs last year	Plan Evaluation



Risk Index

The risk index is the percent of students in a group that receive one or more exclusions (e.g., ODR, suspension). It is an absolute metric that can be interpreted as the proportion of students that were excluded, or the likelihood of a student from that group being excluded.

Calculation and Example

The formula for calculating an ODR risk index is as follows (the same formula can be used for suspensions or other exclusions):

$$\frac{\text{Number of Students with 1 or more ODRs}}{\text{Total Number of Students in a Group}} = \text{Risk Index}$$

The following data (from the SWIS demo account in the 2022-2023 school year) provide examples:

$$\frac{\text{Number of Latino/a/e Students with 1 or more ODRs}}{\text{Total Number of Latino/a/e Students Enrolled}} = \frac{39}{100} = .39$$

$$\frac{\text{Number of White Students with 1 or more ODRs}}{\text{Total Number of White Students Enrolled}} = \frac{101}{300} = .34$$

Interpretation

The risk index can be interpreted as the likelihood of a student from that group receiving that outcome. In the example above, 39% of Latino/a/e students received one or more ODRs. In other words, a Latino/a/e student at this school has a 39% likelihood of receiving one or more ODRs.

Advantages

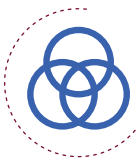
The risk index is easy to calculate from commonly available discipline data, is straightforward to interpret, and indicates the magnitude of impact in terms of the proportion of students excluded. Like the other metrics provided in this section, it accounts for varying enrollments of student groups.

Limitations

Although relatively simple to calculate and interpret, the risk index is a poor metric for progress monitoring of disproportionality because it will only increase throughout the year. Also, it does not provide a comparison of the relative risk between groups. Instead,

it can be used to calculate a more useful metric, the risk ratio.

Race/Ethnicity	# of Enrolled Students	# of Students with Referrals	% of Students within Race/Ethnicity with Referrals	Risk Index
American Indian/Alaska Native	6	3	50.00%	0.50
Asian	7	1	14.29%	0.14
Black/African American	65	46	70.77%	0.71
Hispanic/Latino/a/e	100	39	39.00%	0.39
Native Hawaiian/Other Pacific Islander	4	0	0.00%	0.00
White	300	101	33.67%	0.34
Multiracial	22	0	0.00%	0.00
Totals:	504	190		



Risk Ratio

The risk ratio is the likelihood of an outcome (e.g., receiving ODRs) for one group in relation to a comparison group, making it a relative metric. Risk ratios are calculated by dividing the risk index of the group of concern by the risk index of a comparison group. The federal government's required comparison group is all other students (e.g., comparing risk for Black students to non-Black students; (34 CFR § 300.647). However, White students are sometimes used as the comparison group.*

Calculation and Example

$$\frac{\text{Risk Index of Target Group}}{\text{Risk Index of Comparison Group}} = \text{Risk Ratio}$$

Continuing with the above example, the risk ratio of Latino/a/e students for receiving ODRs, compared to all other students would be calculated as follows:

$$\frac{\text{Risk Index of Latino/a/e Students} \quad .39}{\text{Risk Index of All Other Students} \quad .37} = \frac{.39}{.37} = 1.04$$

Interpretation

A risk ratio of 1.0 shows that the risk for the two groups is equal, whereas a risk ratio greater than 1.0 is indicative of overrepresentation, and a risk ratio less than 1.0 is indicative of underrepresentation (Girvan et al., 2019). In this example, Latino/a/e students are 1.04 times as likely as all other students to receive ODRs.

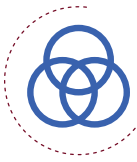
Advantages

The risk ratio is the most common (and federally required) disproportionality metric. Because it is so commonly used, there are multiple options for criteria for identifying disproportionality. It is easily calculated from risk indices and is relatively straightforward to interpret. Like the risk index, it accounts for differing enrollments.

Limitations

Although the risk ratio is the federally required disproportionality metric (Girvan, 2020), using only risk ratios can be problematic for a few reasons. First, risk ratios compare two numbers, which makes them less stable over time, as a change in the risk ratio could be due to a change in the risk for the group of concern, the comparison group, or both. Second, risk ratios may hide the magnitude of disproportionality. For example, a school that suspends 50% of their Black students and 25% of their non-Black students will have the same risk ratio (2.0) as a school that suspends 5% of their Black students and 2.5% of their non-Black students. Third, low use of exclusions can lead to very high risk ratios (U.S. Government Accountability Office, 2013). A school that dramatically decreases its ODR rate across all groups may end up with a higher risk ratio than in the previous year. For example, in the second school with a risk ratio of 2.0, Black students have a risk of exclusion of .05 and non-Black students have a risk of exclusion of .025, leading to a risk ratio of 2.0.

*Our research has found that use of various comparison groups tends to produce similar results and using all other students as the comparison group is the most stable for analyses (Girvan et al., 2019).



If the school reduced the risk of exclusion for Black and non-Black students by .02, then the school would have a risk ratio of 6.0 (the Black student risk of .03 divided by the non-Black student risk of .005). Fourth, if no students in the comparison group received the outcome, it's not possible to calculate a risk ratio. For these reasons, we recommend calculating risk ratios (especially for Problem Identification) and rates by group (especially for Plan Evaluation).

Rates by Group

Rates by group are the total number of exclusions per student, calculated separately for each group (e.g., Black students). It provides the frequency of exclusions provided to students from that group. It is an absolute metric because each rate is calculated separately for each group. In contrast to risk, which assesses whether students have received any exclusions, it includes the total number of exclusions, regardless of who in the group receives them. It provides a bottom-line measure of how often exclusions are happening for each group.

Calculation and Example

$$\frac{\text{Number of Exclusions issued to Students in Group}}{\text{Number of Enrolled Students in Group}} = \text{Rate per Group}$$

Continuing with the above example, the total number of ODRs issued to Latino/a/e students is divided by that group's enrollment:

$$\frac{\text{Number of ODRs issued to Latino/a/e students}}{\text{Latino/a/e student enrollment}} = \frac{155}{100} = 1.55$$

Interpretation

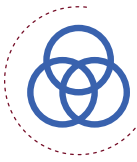
As a bottom-line assessment, the rates by group metric is simply the average number of exclusions per student in that group. In this example, the school provided 1.55 ODRs per Latino/a/e student.

Advantages

Rates by group are the most readily calculated metrics and are familiar to many teams because they are regularly used to assess overall rates of exclusion (e.g., discipline referrals per student). As an absolute metric, they are more stable for comparing over time, especially short periods (e.g., monthly). Hence, they are most useful for monitoring progress over time, such as in Step 4, Plan Evaluation. It is also easy to convert to a relative metric by comparing rates for a specific group to overall rates or rates for all other groups by subtraction (a rate difference) or division (a rate ratio).

Limitations

Rates by group are useful but can be inflated if a small number of students in that group receive a large number of exclusions, which may make it difficult to assess exclusions for the typical student in that group (better assessed by the risk ratio). Also, as an absolute metric, it would need to be compared to other rates (e.g., subtracted from rates for all other students to create a rate difference) to be a true assessment of disproportionality. Low rates do not necessarily mean there are not disproportionate exclusions.



STEP 2: CALCULATE METRICS

Using the formulas provided earlier (or a free Excel™ spreadsheet created by the Center on PBIS), calculate these metrics for each racial/ethnic group and each outcome (e.g., ODRs and suspensions) for a selected period of time, often the last full school year (or the year to date, if at least 3 months into the school year).

STEP 3: COMPARE TO A DISPROPORTIONALITY CRITERION

Once metrics are calculated, the next step is to compare these numbers to a criterion that clearly indicates whether there is an inequity problem. This step can be challenging because there is no federal definition of what constitutes disproportionality, so each state sets its own criteria. As with metrics, there are several options:

- **State Threshold for Significant Disproportionality.** One option for determining a problem may be the state's determined standard for disproportionality, usually in the form of a risk ratio. Although straightforward, many states set risk ratios that are unacceptably high (i.e., schools with high rates of disproportionality may still not be above the state's threshold).
- **Disparate Impact Criterion.** Another logical goal would be the standard for disparate impact (i.e., disproportionality regardless of intent) from the U.S. Equal Employment Opportunity Commission (EEOC). Their disparate impact criterion (known as the "4/5ths rule") indicates a goal risk ratio of below 1.25.

- **Local or National Norms.** Comparing to nearby schools (e.g., district or state averages) or the country can also provide an external standard. Teams could use the median risk ratio or rate per group (50th percentile), but if local rates of disproportionality are high, the 25th percentile may be a better option. Regarding national averages, for U.S. public schools using SWIS and with at least 10 Black and 10 White students in 2018-19, the median ODR risk ratio for Black students (with all other students as the comparison group) was 2.24, and the 25th percentile was 1.49. For the ODR rates by Black students, the median rate for the year was 0.21, and the 25th percentile was 0.10.

STEP 4: IDENTIFY IF THERE IS AN INEQUITY PROBLEM

If the disproportionality metric is above the criterion for any racial/ethnic group, there is an inequity problem for that group, which becomes the group of concern. The team should continue with the process to set goals and explore potential causes. If the team does not identify disproportionality for any racial/ethnic group, the team can review other areas of disproportionality (e.g., disability status, gender identity, language status). If no groups are disproportionately disciplined, the team can skip the remaining steps in the problem-solving model and repeat Step 1 (Problem Identification) at the next decision cycle (e.g., next school year). If disproportionality is found for multiple groups, teams can either continue with the group of most concern or complete the next steps separately for each group.



STEP 5: SET GOALS

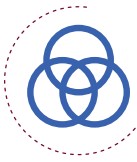
If the team identifies an inequity problem, the next action is to set measurable goals (e.g., SMART goal) for each metric. Teams should always set an ultimate goal of meeting the disproportionality criterion identified above, but teams can also identify a reasonable yet ambitious goal for the next 12 months. For example, teams may aim for a 25% reduction in disproportionality by the end of the school year.

What if my school is 98% Black, Indigenous, or Latino/a/e?

In schools where the students are predominantly (e.g., 90% or more) a single race or ethnicity, it may not be as useful to compare the majority of students to a very small group of all other students. If so, we recommend calculating the school's overall rate of exclusions (e.g., ODRs per student) and comparing it to the overall exclusion rate of the district or state. That comparison will identify the extent to which the school's use of exclusions is disproportionate in relation to neighboring schools. If the school is almost exclusively one non-White race, any difference would represent disproportionate discipline.

Don't Expect the Numbers to Speak for Themselves!

It may be tempting to simply share discipline data with educators and expect the numbers to motivate action for equity (Bastable et al., 2022). However, our research has shown that sharing discipline data with school administrators each month is insufficient to change outcomes or even increase equity goal setting (McIntosh et al., 2020). Instead of solely sharing data showing a disproportionality problem, guide teams through the whole process so they can understand the metrics for themselves (Step 1) and then identify patterns in the inequities (Step 2) that will inform specific actions that are tailored to these patterns (Step 3). This approach is more likely to minimize defensiveness and lead to more equitable discipline outcomes (McIntosh, Girvan, Fairbanks Falcon, et al., 2021; McIntosh, Girvan, McDaniel, et al., 2021).

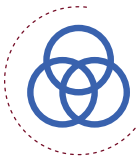


School Example: Lewis K-8 School

To help clarify the approach used in this guide, each step will include the steps taken by a fictitious school, based on common data patterns (the SWIS Demo School, as of the 2022-2023 school year). It is important to note that this example illustrates the process based on this school's data and needs, and their decisions may not fit the context of another school and are not necessarily recommended for all schools.

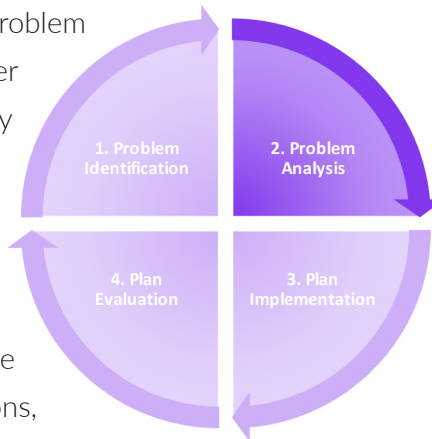
Lewis K-8 School is located in a small city and has an enrollment of 504 students, 72% of whom receive free and or reduced-price meals. The student population is 60% White non-Hispanic, 20% Latino/a/e, and 13% Black. The school has been implementing PBIS for 2 years and uses the School Wide Information System (SWIS) to enter and analyze ODR data. They are examining their school discipline data for racial/ethnic disproportionality.

The Lewis leadership team, along with their PBIS coach, decides to use risk ratios as their disproportionality metric for Problem Identification. Before they can calculate risk ratios, they need to calculate risk indices for each group and identify the most appropriate comparison group (e.g., White students, all other students). They decide to use all other students as the comparison group. Calculating the risk ratios for ODRs, the team determines that compared to all other students, Black students have a risk ratio of 2.16, and Latino/a/e students have a risk ratio of 1.1. These metrics indicate significant disproportionality for Black students because the risk ratio is above the federal disparate impact criterion of 1.25. Thus, Black students becomes the school's group of concern. The team then calculates the average rate by group for Black students, which is 2.15 ODRs per Black student (by comparison, White students received an average of 1.16 ODRs per student). The team decides to set a primary end of year goal of reducing the ODR risk ratio for Black students by 25% (to 1.62) for the next year, as well as set a secondary end of year goal of reducing the ODR rate for Black students by 25% (to 1.61) and monitor these data yearly and quarterly, respectively. Next, the team will move to Step 2 to examine why the disproportionality is happening and create an action plan to reduce ODRs for Black students.



STEP 2: Problem Analysis (“If So, Why is it Happening?”)

If a problem is identified in Step 1 (Problem Identification), the team will move to Problem Analysis. The purpose of Problem Analysis is to investigate why the problem is occurring and gather information to identify potential solutions. By pinpointing the specific causes of the problem, teams can identify more effective strategies, interventions, and systems-level initiatives. For example, when a team identifies a problem in which too many students have multiple ODRs, the team may assess fidelity of PBIS implementation to identify areas where practices might be improved. It is important that Problem Analysis focuses on identifying variables that can be changed, as opposed to individual traits or variables beyond the control of educators.



In school discipline, a promising approach is to use data to identify what are called precise problem statements. In contrast to a basic statement (e.g., “the hallways are out of control”), a precise problem statement (e.g., “The most referrals in the school are occurring for disruption in the hallway next to the cafeteria just before 5th grade lunch”) is a more detailed statement that makes it easier to design interventions that are more likely to work. In fact, research from TIPS shows that using precise problem statements leads to more productive team meetings and improved student outcomes (Horner et al., 2018; Newton et al., 2012).

Terminology

Precise Problem Statement: A brief description of the most common patterns of exclusions in the school. They tell teams what situations (e.g., who, what, when, where) are most likely to result in referrals. They provide specific information on how to design plans to prevent the most common exclusions.

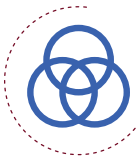
Example: ODRs are most likely to be issued for physical aggression in the cafeteria between 12:00 and 12:30 for students in 8th grade.

Vulnerable Decision Point: A precise problem statement that identifies the most common situations for disproportionate discipline, which may indicate implicit bias in discipline decisions. Instead of describing the situation with the most exclusions, it describes the situation with the most disparities in discipline. They provide specific information on how to design plans to reduce disproportionality.

Example: ODRs are most likely to be issued to multiracial students for disruption in the hallways between 12:30 and 1:00.

Equitable Decision Point: A discipline situation in which exclusions are proportionate to student numbers. These indicate a lack of bias in discipline decisions and can be used to highlight areas of equitable treatment of students and identify strengths to build upon.

Example: ODRs are equitable for technology violations in the classroom.



Use for Disproportionality

The key outcome in Problem Analysis for disproportionality is to go beyond simply identifying disparities and find patterns that will lead to a plan that is more likely to be effective. In Problem Analysis, teams can identify under what conditions the disproportionality identified in Problem Identification is most pronounced. These conditions (or discipline decisions) are called vulnerable decision points (VDPs) because it is at these times where we are most susceptible to our biases in decisions whether to exclude a student (McIntosh et al., 2014; Smolkowski et al., 2016). For example, disproportionality may be more likely for defiance in classrooms. Identifying these specific points is crucial for successful intervention to reduce disproportionality. A resulting plan may include revising systems to be more responsive and providing strategies to educators in making equitable decisions.

The following questions help identify vulnerable decision points. These situations can be found on many ODR forms and analyzed from disaggregated ODR data, as well as suspension data.

- WHAT behavior types (e.g., defiance, fighting) are most disproportionate?
- WHERE (i.e., for what locations) are exclusions most disproportionate?
- WHEN (i.e., for what time of day/day of the week/month of the year) are exclusions most disproportionate?
- WHAT PERCEIVED MOTIVATIONS (i.e., what perceived functions of problem behavior) are associated with disproportionate exclusions?

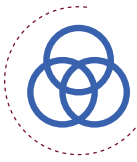
A Note about Deficit Thinking

When seeking potential causes of disproportionality, it is a common mistake to point at perceived deficits of students, families, and communities instead of looking to improve the context. Deficit thinking can lead to biased decision making, unequal resource allocation, and perpetuation of systemic inequities. Teams can discuss this tendency and ask each other to reject deficit thinking when it occurs.

In place of deficit thinking, teams can shift towards asset-based thinking, which focuses on identifying and building upon the strengths, skills, and resources of individuals and communities. By adopting an asset-based approach, it becomes more possible to embrace diversity, promote belonging, and increase inclusion.

- WHO (e.g., what staff) is issuing disproportionate exclusions? Note: for this situation, disparities do not necessarily indicate racism, but rather situations or contexts where additional support may be needed. Data should not be used to punish individuals, but rather to improve the understanding of the context in which incidents take place.

In addition, it is also worthwhile to examine other school data to identify root causes of discipline disproportionality. These data, such as fidelity of implementation of preventive interventions, access to Tier 2 and 3 supports, academic achievement, attendance, and perceived school climate, can help teams create more effective plans. For example, inequities in achievement or access to academic intervention may be exacerbating inequities in



discipline (Gregory et al., 2010). This pattern indicates the need for improving the quality and equity of access to academic support.

Steps within Problem Analysis

The following steps can be used for Problem Analysis.

STEP 1: IDENTIFY VULNERABLE DECISION POINTS

Specific situations that are more predictive of disproportionality can be identified by examining the fields from disaggregated data. Although steps for an advanced method are in Appendix B (p. 33), teams can follow these steps to generate a basic vulnerable decision point,* using these directions or the worksheet in Appendix C (p. 34):

1. Create (or filter) two datasets of exclusions: (a) one with exclusions only for the group of concern identified in Step 1 (e.g., Black students), and (b) one with exclusions for a comparison group (e.g., all other students).
2. Identify the most common situations for exclusions for the group of concern (and optionally for the comparison group).
 - **Behavior:** Identify the most common student behavior for the group of concern.
 - **Location:** Identify the most common setting for exclusions for this group.
 - **Time of Day:** Identify the most common time of day for exclusions.
 - **Perceived Motivation:** Identify the top perceived motivation for behaviors.

3. Write out a vulnerable decision point, a precise problem statement for inequitable discipline. For example: Black students are most likely to receive ODRs for disrespect in the hallways between 1:00 and 1:30 PM. ODRs are maintained by peer attention.

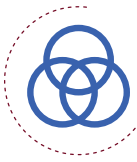
STEP 2: ASSESS FIDELITY OF TIER 1 SYSTEMS

A key question in equity work is whether Tier 1 (i.e., schoolwide) systems for improving school climate (e.g., PBIS) are fully in place as a foundation for making schools more safe, predictable, positive, and equitable. Equity in school discipline is a Tier 1 issue, meaning that it requires a focus on improving Tier 1 supports. Certain aspects of PBIS (e.g., use of data for decision making, classroom PBIS implementation, use of acknowledgment systems), have been shown to be related to greater equity in school discipline (Barclay et al., 2022; Tobin & Vincent, 2011). The PBIS Tiered Fidelity Inventory (Algozzine et al., 2014) includes items assessing cultural responsiveness and student, family, and community engagement, which may also be helpful in reducing disproportionality.

STEP 3: ASSESS INEQUITIES IN OTHER SCHOOL DATA

Discipline disproportionality is an important outcome, but additional data sources may provide teams with more areas for intervention. For example, teams may disaggregate their school climate survey, attendance,

*In SWIS, both the basic and advanced methods are performed using the Drill Down tool. An overview and demonstration of the process can be found in this [brief tutorial video](#).



and academic achievement to assess whether intervention in other areas could help improve equity in discipline.

STEP 4: LEARN FROM STUDENTS, FAMILIES, AND COMMUNITY MEMBERS

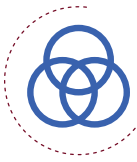
Share data and ask for their experience and perspectives on potential causes of the problem. Consider using surveys, forums, and focus groups to gather information through multiple methods.

School Example: Problem Analysis

In moving through the above process, the Lewis team uses the SWIS Drill Down tool and worksheet in Appendix C (see p. 34) to identify a vulnerable decision point: Black students are most likely to receive ODRs for defiance in the classroom in the first 30 minutes of the school day and on Mondays in particular. This pattern is most likely for students in 8th grade. Because this pattern is not seen for other groups, the data indicate the need to address educators' decision making in these specific discipline situations.

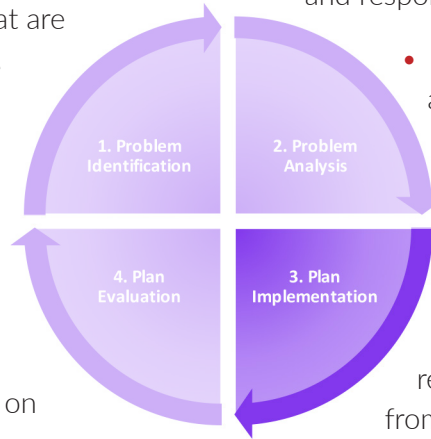
Upon review of fidelity data, the team identifies that although their most recent [Tiered Fidelity Inventory \(TFI\)](#) score indicates they are implementing Tier 1 PBIS with fidelity, the lower scores for items 1.8 (classroom procedures), 1.9 (feedback and acknowledgement), and 1.11 (student/family/community involvement) could be contributing to the vulnerable decision point. Their [School Climate Survey](#) data also showed that Black students, on average rated items 4 ("My school has clear rules for behavior") and 10 ("There is an adult at my school who will help me if I need it") lower than all other student groups.

The team decides to conduct an additional survey, the [Feedback and Input Survey](#) for all 8th grade students. They find that only 14% of Black students report being praised in the last week (compared to 63% overall), and only 9% were praised in a way that felt meaningful to them (compared to 49% overall).



STEP 3: Plan Implementation (“What Should We Do?”)

Based on the information gathered in Problem Analysis, Plan Implementation includes (a) selecting and then (b) implementing strategies that are most likely to be effective in solving the problem. Plan Implementation includes designing an action plan to ensure that the specific strategies are carried out as intended. Identifying each task, who will be responsible, and when it is to be completed helps improve the likelihood the task will be accomplished on time.



decision points indicate could be contributing to disproportionality (e.g., lack of consistent teaching and responses to unwanted behaviors).

- Definitions of schoolwide expectations and desired behaviors. Engage the entire school community (e.g., school personnel, students, families, communities) in co-creating values and expectations, including collectively defining desired and unwanted behaviors. Revise and reteach expectations with input from students, families, and community members. Pay close attention to behaviors (e.g., defiance) that may be strongly contributing to disproportionality.

Use for Disproportionality

For Plan Implementation, use the data collected in Step 2 (Problem Analysis) to create an intervention plan that is most likely to improve outcomes. One or more of the following problems (and recommended strategies) may be targeted:

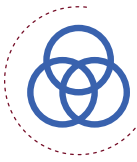
- Disproportionality in specific situations. Use the vulnerable decision points identified in Step 2 to develop trainings to reduce effects of bias in decision making for these situations. For example, greater disproportionality in common areas may indicate the need for revisiting and clarifying expectations and acknowledgement systems in this location. Greater disproportionality in the classroom may indicate the need to revisit and reteach routines and provide strategies for responding instructionally to unwanted behaviors.
- Inadequate PBIS implementation. Implement core features of PBIS to establish a foundation of support and instructional approach to discipline. Pay attention to features that the vulnerable

- Inequities in school climate. Co-create interventions with students from the group of concern to increase safety and belongingness. Use strategies to get to know students (e.g., activities, surveys) and increase positive interactions, including behavior-specific and non-contingent praise.
- Low attendance or engagement. Increase the relevance of the curriculum through culturally responsive pedagogy. Recognize and validate students’ cultural identities and make the curriculum relevant by establishing connections between the content being taught and students’ real-life experiences in their communities.

Steps within Plan Implementation

STEP 1: DEVELOP A SOLUTION

See the Center’s recommendations for reducing disproportionality and other practice guides in this series for steps to reduce disproportionality at the



[Equity topic on the Center for PBIS website.](#) Consider strategies in the following areas:

- **Prevent Unwanted Behavior:** Change the environment and interactions to make unwanted behavior less likely
- **Teach Desired Behavior:** Identify, teach, and practice the behaviors we want to see
- **Reinforce Desired Behavior:** Acknowledge behavior we want to see
- **Extinguish Reinforcement for Unwanted Behavior:** Prevent reward of unwanted behavior

- **Respond Instructionally to Unwanted Behavior:** Correct unwanted behavior instead of exclusion
- **Collect Data:** Assess plan fidelity and outcomes

STEP 2: CREATE A DETAILED ACTION PLAN

Take the strategies that have been identified and design a plan for implementation that includes specifics on WHAT to do, WHO will do it, BY WHEN it will be done, and WHETHER IT WAS DONE.

School Example: Plan Implementation

In Step 2 (Problem Analysis), the team identified a strong need for staff training to reduce implicit bias in ODRs for defiance in the classroom, especially in the first 30 minutes of the school day. In an effort to improve cultural responsiveness and consistency, the team holds a series of community forums to review and revise their behavior expectations, teaching matrix, and acknowledgement systems with students and families. The team also decides to revisit classroom systems to ensure they are consistent with schoolwide systems and that acknowledgement systems are used equitably. At the next staff meeting, members of the school leadership team lead staff through activities clarifying staff vs. administrator-managed behaviors, especially for defiance. All staff are advised to be particularly attentive to equitable interactions at the start of the school day, when disproportionality is strongest.

Problem Solving Step	What	Who	By When	Completed?
Step 3. Plan Implementation • Develop a solution • Create a detailed action plan	1. Schedule evening forums to review expectations with students and families and revise based on input	Diana and Thomas	In the next week	
	2. Lead staff activity/discussion to clarify (a) definitions of defiance, (b) staff vs. administrator managed defiance, (c) equitable use of acknowledgement systems, and (d) instructional responses to defiance	School Leadership Team	Next staff meeting	
	3. Share article for review and hold discussion on implicit bias	PLC team leads	Three days after meeting	
	4. Provide all staff with reminder to greet students at the door and be prepared to respond instructionally to defiance at morning staff announcement before school starts	Dr. Stoll	Daily for 2 weeks	



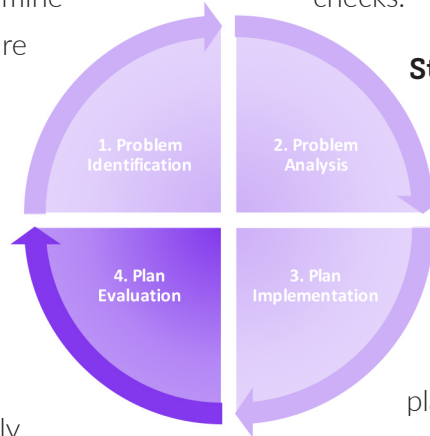
STEP 4: Plan Evaluation (“Is Our Plan Working?”)

Step 4 (Plan Evaluation) involves collecting short-term (i.e., progress monitoring) data to determine whether strategies selected in Step 3 are being implemented and are effective in solving the identified problem. Evaluation occurs through periodic data collection and meetings (e.g., monthly, quarterly), so the plan can be changed based on results. Progress monitoring, or formative assessment, takes place more frequently than summative evaluation, which happens again when teams return to Step 1 (Problem Identification). The summative step will then be used to inform the next cycle of the problem-solving model. As the cycle is completed, it is important to report progress to staff, families, their communities, and district administrators.

Use for Disproportionality

Evaluation for disproportionality includes calculating the metric(s) selected in Problem Identification (e.g., risk ratios, rates per student) on a regular basis and reviewing them for progress. However, the time interval for monitoring progress in disproportionality may be longer than for other discipline data decisions. For example, teams often examine their general discipline data at least monthly. Yet, for disproportionality data, monthly may be too frequent to see stable change. Currently, we recommend examining disproportionality data quarterly, but teams may wish to review more frequently (e.g., monthly), especially if monitoring with rates by group. To assess

action plan implementation, we recommend monthly checks.



Steps within Plan Evaluation

The following general steps are used in Plan Evaluation for disproportionality:

STEP 1: IDENTIFY THE TIME PERIODS FOR EVALUATION

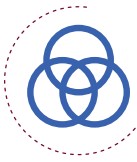
We recommend that teams assess plan implementation monthly and disproportionality outcomes quarterly (or monthly if using rates per group).

STEP 2: ASSESS IMPLEMENTATION PLAN PROGRESS

Review the progress made since the previous period on the action plan developed in Step 3 (Plan Implementation). Assess steps completed to date (progress) and how well the strategies are being used (fidelity of implementation). If progress is slow or implementation is poor, assess barriers to implementation and make a plan to address them.

STEP 3: CALCULATE METRICS FROM STEP 1 (PROBLEM IDENTIFICATION)

For each evaluation meeting, calculate and share the disproportionality metrics from the most recent time period (e.g., quarter, year). This approach allows school teams to track whether the problem is increasing or decreasing over time (and based on their efforts). For example, if evaluating discipline referral rates per group monthly, calculate the rates for the last month and



compare these results to previous months.* As noted above, rates per group may provide better data for plan evaluation than risk ratios and risk indices.

STEP 4: COMPARE TO GOALS

Once metrics are calculated, the next step is to identify progress toward the goals identified in Step 1.

- If adequate progress is being made, the team can continue with the current plan and consider if any elements should be faded (e.g., if currently issuing daily reminders to teachers, could reminders be faded to weekly and still achieve progress toward equitable outcomes?).
- If progress is inadequate, the team should first assess the implementation plan progress (i.e., to what degree did we do what we said we would do?).
 - If the plan hasn't been implemented consistently (i.e., lacking fidelity), the team can select strategies to improve implementation.
 - If the plan has been implemented consistently (i.e., high fidelity), the team should revisit Steps 2 and 3 (Problem Analysis and Plan Implementation) to ensure they identified the right problems and selected a plan that is most likely to address it.

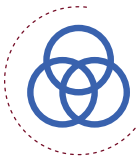
STEP 5: SHARE RESULTS WITH STAFF, FAMILIES, AND COMMUNITY MEMBERS

The team can share results with important partner groups, such as the whole school staff, families, community groups, and district administrators.

STEP 6: RETURN TO STEP 1 (PROBLEM IDENTIFICATION)

At the end of the time period (e.g., school year), the team compares their disproportionality metrics to their criterion for a summative evaluation of whether there is still disproportionality for the group of concern.

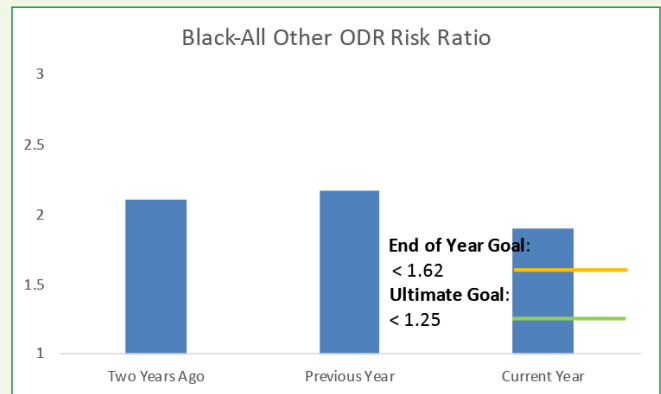
* The SWIS Drill Down filters and ethnicity graphs can be used to calculate risk indices and ratios by any designated time period (e.g., monthly).



School Example: Plan Evaluation

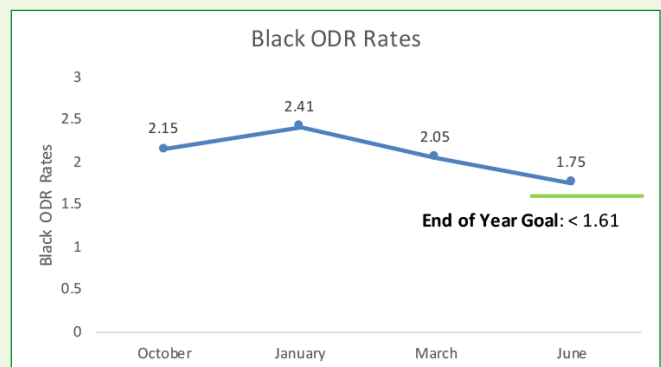
To assess implementation progress, the Lewis team reviews and examines their action plan monthly. They pay particular attention to completing implementation tasks and assessing fidelity of implementation. After the first month, they note that the evening forums to review the expectations with caregivers have not yet been scheduled and offer supports to the forum facilitators to make them happen.

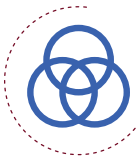
To progress monitor student outcomes, the team uses SWIS to review ODR rates for Black students quarterly. They use Microsoft Excel™ to chart their progress. The team notes an increase in rates and uses the drill down feature to identify that the increase is in Grade 8. They discuss the possibility that the Grade 8 team may need another refresher on staff vs. administrator-managed behaviors and assign a member of the team to meet with Grade 8 staff to facilitate the review and check on fidelity of positive greetings at the door.



To complete the steps of the problem-solving model, the team uses SWIS to examine their ODR risk ratios as they did in Step 1 and assess whether there is still an inequity problem, based on their goal of reducing the risk ratio for Black students to be at or below the federal disparate impact criterion of 1.25. They use Microsoft Excel™ to chart their risk ratios.

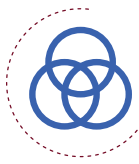
At the end of the first year of implementation, the team notes that the risk ratio has decreased from 2.16 to 1.9, a 12% reduction. They are making some progress, but a risk ratio above 1.25 still indicates an inequity problem, so they will continue through the problem-solving model process again. Similarly, the ODR rate by group for Black students has decreased from 2.15 to 1.75. Examining all of their monthly and quarterly data, they revise the action plan for the coming year to include additional professional development and review sessions for all staff. At their year-end meeting, the team discusses their meeting schedule and procedures for monitoring their progress. The team agrees that their monthly, quarterly, and yearly monitoring, paired with strategic strategies for improved outcomes, has worked reasonably well, and they plan to continue this evaluation plan in the coming year to meet their goal.





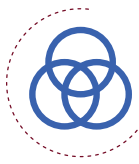
Conclusion

Although it can feel daunting to identify and address disproportionality in school discipline, there is now a broad research base demonstrating that the approach in this guide is effective in increasing racial/ethnic equity in school discipline (Santiago-Rosario et al., 2022). The four-step problem-solving model provides a straightforward process to assess whether there are inequity problems, identify specific discipline decisions that are more likely to be disproportionate, implement strategies that are most likely to solve the identified problem, and determine if the plan is working. By examining our data comprehensively and with a focus on actionable steps, we can achieve positive outcomes for all students.



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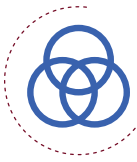
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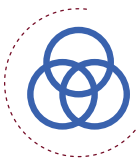
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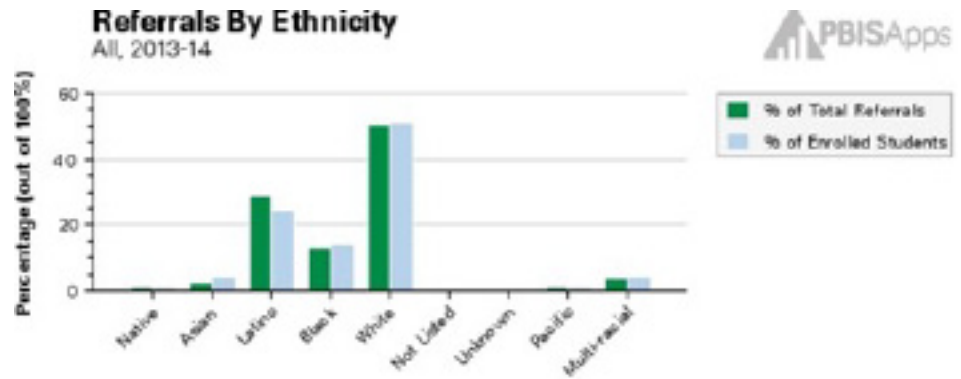
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APPENDIX A: Additional Disproportionality Metrics

Composition

Often used in national reports or news stories, composition metrics provide another measure of disproportionality. One common composition metric is the comparison of the proportion of students within a racial/ethnic group to the proportion of ODRs from the same group. Referred to as *Outcomes by Group* or *Students with Outcomes by Group*,* this metric allows educators to evaluate whether the number of ODRs from one group is proportionate to the group's size. It is a useful addition because in some cases, risk indices and ratios may show that a similar percent of each group has received an ODR, but students from a specific group may receive many more ODRs than students from other groups.



INTERPRETATION

Composition reports are usually interpreted visually. If the column for enrollment is the same height as the column for exclusions (or students with exclusions that had 1 or more exclusions), then the exclusions are what would be proportional to that group's number of students. If the column for number of exclusions is higher than enrollment, then that group receives a disproportionate number of exclusions, more than

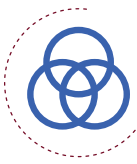
CALCULATION AND EXAMPLE

Composition reports compare a student group's percent of the total enrollment to their percent of exclusions, or alternatively, the percent of students excluded at least once.

The following data (from the SWIS demo account in the 2022-2023 school year) provides an example:

Race/Ethnicity	# of Enrolled St...	# of Students w...	% of Enrolled S...	% of Students ...	Risk Index
American Indian...	6	2	1.10%	1.10%	0.33
Asian	7	1	1.39%	0.52%	0.14
Black/African A...	65	43	12.90%	24.57%	0.66
Hispanic/Latino/...	100	35	10.64%	20.00%	0.35
Native Hawaiian/...	4	0	0.20%	0.00%	0.00
White	300	94	50.52%	52.71%	0.31
Multiracial	22	0	4.37%	0.00%	0.00
Totals:	504	175	100%	100%	

* This report is one of the optional SWIS Equity Report graphs.



would be expected if the exclusions were equally distributed.

ADVANTAGES

Composition reports are intuitive and visually simple to interpret. It is easy to see if a group’s number of exclusions (or risk for exclusions) is relatively equal or disproportionate. Seeing the differences in an image can be compelling.

LIMITATIONS

Composition reports are difficult to quantify. For Problem Identification, it is difficult to determine how much of a difference in column heights on a chart (or difference in percentages) constitutes significant disproportionality. Similarly, it is also difficult to measure progress in reducing disproportionality with composition reports.

Raw Differential Representation

Raw Differential Representation (RDR; Girvan, McIntosh, & Smolkowski, 2019) is a relative metric that captures the magnitude of disproportionality in terms of the number of students impacted. It can be interpreted as the number of students in a group that receive one or more exclusions (e.g., ODR, suspension) but would not have if the students in that group received exclusions at the same rate as students in a comparison group.

CALCULATION AND EXAMPLE

RDRs are calculated using either a Risk Ratio or Risk Difference (the same formula can be used for suspensions or expulsions).

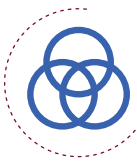
$$\frac{\text{Risk Index of Target Group}}{\text{Risk Index of Comparison Group}} = \text{Risk Ratio}$$

$$\left(\frac{\text{Number of Students in Target Group with ODRs}}{\text{Risk Ratio}} \right)$$

- Number of Students in Target Group with ODRs = RDR

$$\text{Risk Index of Target Group} - \text{Risk Index of Comparison Group} = \text{Risk Difference}$$

Total Number of Students in Target Group × Risk Difference = RDR



The following data (from the SWIS demo account in the 2022-2023 school year) provides an example:

Race/Ethnicity	# of Enrolled Students	# of Students with Referrals	% of Students within Race/Ethnicity with Referrals	Risk Index
American Indian/Alaska Native	6	3	50.00%	0.50
Asian	7	1	14.29%	0.14
Black/African American	65	46	70.77%	0.71
Hispanic/Latino/a/e	100	39	39.00%	0.39
Native Hawaiian/Other Pacific Islander	4	0	0.00%	0.00
White	300	101	33.67%	0.34
Multiracial	22	0	0.00%	0.00
Totals:	504	190		

$$\frac{\text{Number of Black Students with 1 or more ODR}}{\text{Number of Black Students Enrolled}} = \frac{46}{65} = .71$$

$$\frac{\text{Number of White Students with 1 or more ODR}}{\text{Number of White Students Enrolled}} = \frac{101}{300} = .34$$

Risk Ratio Approach

$$\frac{.71}{.34} = 2.09$$

$$\left(\frac{46}{2.09} \right) - 46 = 2$$

Risk Difference Approach

$$.71 - .34 = .37$$

$$65 \times .37 = 24$$

INTERPRETATION

The RDR can be interpreted as the number of students in the group of concern (in this example,

Black students) that had 1 or more ODRs but that would not have if Black students received ODRs at the same rate as White students.

Thus, in the example above, 24 more Black students received one or more ODRs than would have if students from that group received ODRs at the same rate as White students. In other words, the magnitude of the impact of racial disproportionality in exclusions in the school is

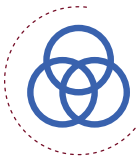
equivalent to 24 more Black students receiving one or more ODRs that should have if there was not disproportionality.

ADVANTAGES

RDRs can be calculated from commonly available discipline data, are straightforward to interpret, and indicate the magnitude of impact in terms of the raw number of students excluded. When enrollments between schools are fairly similar, it provides an intuitive and concrete way to understand where the impacts of disproportionality are most severe, and, when enrollments within a school are relatively stable from year to year, it provides an intuitive and concrete way to monitor progress over time.

LIMITATIONS

RDRs are strongly influenced by enrollment numbers and thus are a poor metric for comparing the amount of disproportionality between schools of different sizes or enrollment compositions or for monitoring progress within a school over time when enrollment is also changing.



APPENDIX B: Advanced VDP and EDP Generation using SWIS

The basic steps presented on pp. 19 generate a basic, unverified vulnerable decision point (VDP). It doesn't identify whether the most common exclusions are actually related (e.g., the most common behavior is Fighting and the most common location is Classroom, but the Fighting may not have occurred in the Classroom). Also, it doesn't do a direct equity comparison. For that, teams can use the advanced method. This version is similar to the TIPS process but includes verification of inequities in the precise problem statement.*

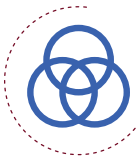
Advanced VDP Steps

1. Identify the school year for VDP identification. Try to use at least a half-year of data. That should be the only filter to start (i.e., no race/ethnicity filters).
2. Identify a Red Flag field, such as the most common Location for ODRs (e.g., Classroom). Alternatively, use Behavior (e.g., defiance) to start.
3. Use that field (e.g., Location > Classroom) as a filter and add it to the Include in Dataset box. Then change the graph type to identify the next filter (e.g., location or time of day). Add the identified field to the data set, and keep repeating the process (e.g. Classroom/Defiance/8-10 AM/ Mondays).
4. Add all of these filters (i.e., the whole Precise Problem Statement) and then generate the "Equity: Risk Ratios" graph type. Note the risk ratio for your group of concern.
5. Remove all of the filters and generate the "Equity: Risk Ratios" graph type again. Note the risk ratio. In addition, teams could assess the OSS VDP by adding "Action Taken: Suspension" to the filter.
6. If the risk ratio is higher for the group of concern, the VDP has been verified a VDP for inequities. However, note the number of ODRs to ensure there is a stable pattern and not just a few incidents. If the number of ODRs is small, remove some filters until a real pattern is evident.

Advanced Equitable Decision Point (EDP) Steps

1. In Drill Down, generate the "Equity: Risk Ratios" graph type, click show values, and note the Risk Ratio for the group of concern (e.g., Black students). Ex: 2.96
2. Add the filter for the most common VDP for the group of concern (e.g., PAgg) and note the risk ratio. Ex: 4.15
3. Remove the filter and go down the list of Problem Behaviors from most to fewest for "All Others" by moving group of interest to 'Exclude' window.
4. Find at least one Behavior for which the risk ratios for the group of concern and the comparison group (and preferably all students) are equivalent. Share that as an example of an EDP. Alternatively, teams can also find examples where the comparison group is disproportionately excluded.

*In SWIS, both the basic and advanced methods are performed using the Drill Down tool. An overview and demonstration of the process can be found in this [brief tutorial video](#).



APPENDIX C: Disproportionality Data Analysis Worksheet & Action Planning Tool: School Teams

Instructions: This form can be used in conjunction with the disproportionality data guidebook (Using Discipline Data within SWPBIS to Identify and Address Disproportionality: A Guide for School Teams, at <http://www.pbis.org/equity>) for school teams to assess, address, and monitor inequities in discipline.

School: _____ Date: _____

Steps in the Equity Problem-solving Process

1. Problem Identification: Is there an inequity problem?
2. Problem Analysis: If so, why is it happening?
3. Plan Implementation: What should we do?
4. Plan Evaluation: Is our plan working?

STEP 1. PROBLEM IDENTIFICATION:

Is there an inequity problem?

1. SELECT DISPROPORTIONALITY METRICS.

Recommended metrics:

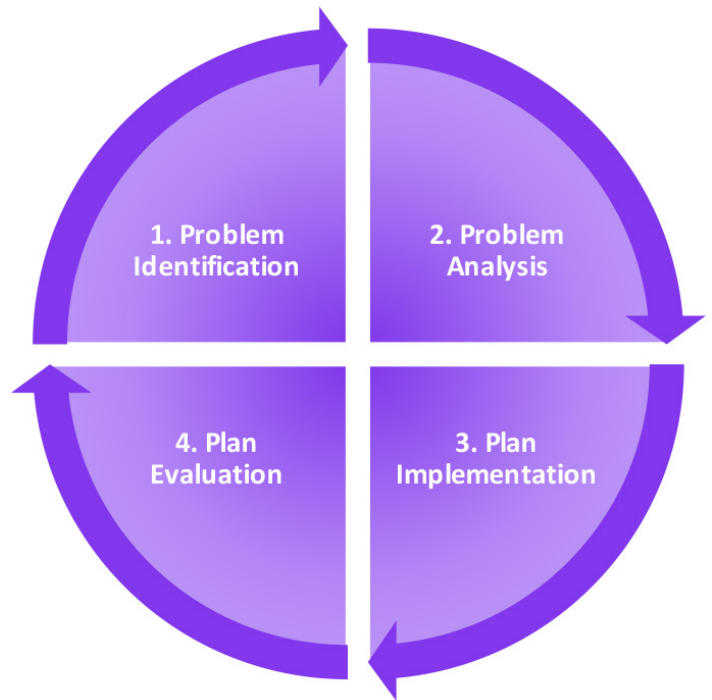
- ODR risk index (i.e., % of students w/ODR; absolute)
- ODR risk ratio (relative)
- ODR rates by group (absolute)

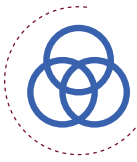
Outcome 1: _____

Outcome 2: _____

Comparison Group for relative metrics (usually All Other students): _____

Note: if your school is over 90% the same race/ethnicity, use state averages





2. CALCULATE METRICS

Calculating ODR risk index and ratio (note: automatically calculated in SWIS Equity Report):

1. Log in to pbisapps.org and go to SWIS Suite.
2. Click on “View Reports” and under Additional Reports, “Equity.” The first two charts are the risk index and risk ratio (default comparison group: All Other Students).
3. Scroll down to the second (Risk Ratio) chart.
4. Click the “Data Table” tab to get the numbers for the risk index and risk ratio columns.
5. Add the numbers in the columns below.

Group	ODR risk index	/	ODR risk index for comparison group (e.g., All Other)	=	ODR risk ratio
American Indian/Alaska Native		/		=	
Asian		/		=	
Black or African American		/		=	
Hispanic or Latino/a/e		/		=	
Pacific Islander		/		=	
White		/		=	
Multiracial		/		=	

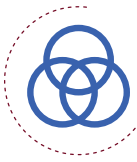
Last year, which group had the highest ODR risk ratio?

Group: _____ ODR Risk Ratio: _____

Interpretation

Last year, _____ students were _____ times as likely as other students to receive at least one ODR.
(group) (risk ratio)

How does this line up with what you predicted? _____



3. COMPARE TO A DISPROPORTIONALITY CRITERION.

Common options include:

- National median (e.g., 25th %ile of 2015-16 SWIS Black/All Other Risk Ratio = 1.53)
- Federal criteria (e.g., EEOC 4/5ths rule is a Risk Ratio no higher than 1.25)

4. IDENTIFY IF THERE IS AN INEQUITY PROBLEM.

Is this ODR risk ratio above the threshold?

ODR Risk Ratio: _____ Threshold: _____

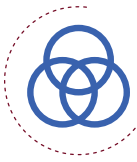
If not, return to STEP 2 (next page)

If so, continue the process.

5. SET GOALS

Set an ultimate goal (e.g., below disproportionality criterion) and an end of year goal for each metric.

Metric	Last Year's Status	Ultimate Goal	This Year's Goal	Review Date



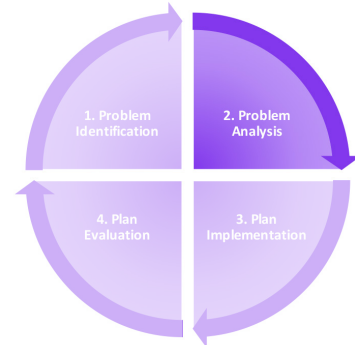
STEP 2. PROBLEM ANALYSIS: Why is it Happening?

1. Identify vulnerable decision points (VDPs)

Is there more or less disproportionality depending on the situation?

National ODR Data: Common VDP situations for Black/All Other ODRs include:

- Behavior: _____
- Location: _____
- Time of Day: _____
- Day of Week: _____
- Grade level: _____



Your School Data: What are common VDP situations for ODRs?

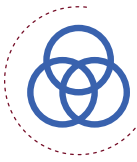
Use your school's drill down data to find the most common situations for ODRs, first for the group of concern (left), then for all other students (right).

Group of Concern

- Behavior: _____
- Location: _____
- Time of Day: _____
- Day of Week: _____
- Grade level: _____

All Others

- Behavior: _____
- Location: _____
- Time of Day: _____
- Day of Week: _____
- Grade level: _____



Provide the vulnerable decision points:

ODRs are most commonly issued to _____ students for _____
(group of concern) (behavior)
in _____ during _____ in _____
(location) (time of day) (grade level)

ODRs are most commonly issued to ALL OTHER students for _____
(behavior)
in _____ during _____ in _____
(location) (time of day) (grade level)

Where do you see differences?

2. ASSESS FIDELITY OF TIER 1 PBIS SYSTEMS

Do teachers, administrators, staff, and students have a clear understanding of behavior expectations? Are students who engage in the expected behaviors regularly positively acknowledged?

Fidelity of Implementation (if applicable)

Use a research-validated measure to assess the quality of implementation. Common measures:

Measure	Criterion for Adequate Implementation
Tiered Fidelity Inventory (TFI) Tier 1	70%

List the most recent fidelity assessment here:

Measure: _____ Date: _____ Score: _____



From this assessment, provide the overall level of quality of implementation of the following components of effective behavior systems:

- Expectations for student behavior and routines schoolwide and in classrooms are:
 - Clearly defined (TFI 1.3, 1.8)
 - Positively stated (TFI 1.3, 1.8)
 - Taught and practiced (TFI 1.4)
 - Consistent with student, family, and community culture (TFI 1.11)
- Students engaging in expected behaviors are:
 - Regularly acknowledged (TFI 1.9)
 - Acknowledged in ways meaningful to them (TFI 1.11)

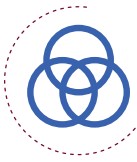
Could any gaps in fidelity of implementation of these critical features be related to patterns of disproportionality?

Add these critical features to the action plan.

3. ASSESS INEQUITIES IN OTHER SCHOOL DATA.

Review school climate survey data. Is disproportionality related to differences in perceived safety or respect, or connections to adults?

What are some positive areas?



What is an area for growth?

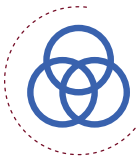
4. LEARN FROM STUDENTS, FAMILIES, AND COMMUNITY MEMBERS.

What is our plan to get perspectives of affected parties?

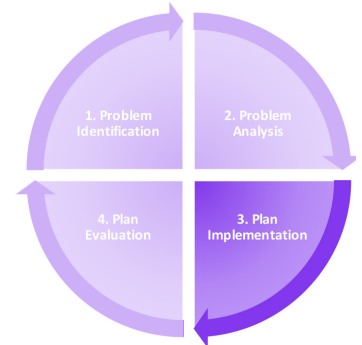
How will we learn from students?

How will we learn from caregivers and families?

How will we learn from community members?



STEP 3. PLAN IMPLEMENTATION: What should we do?



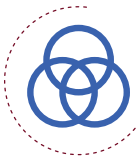
1. DEVELOP A SOLUTION

Copy the VDP for your Group of Concern here for reference:

ODRs are most commonly issued to _____ students for _____
 (group of concern) (behavior)
 in _____ during _____ in _____.
 (location) (time of day) (grade level)

Identify strategies to implement based on your strongest VDP:

Solution Components	Possible Action Steps
Prevent	
Teach	
Reinforce	
Extinguish	
Respond Instructionally	
Collect Data	

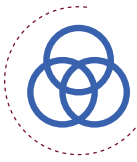


2. CREATE A DETAILED ACTION PLAN

Take the strategies that have been identified and design a plan for implementation that includes specifics on WHAT, WHO, WHEN, and WHETHER IT WAS DONE.

Activity	Who is Responsible	Target Start Date	Target Completion Date	How will we know if it's working?

Number of Tasks to be Completed this Year: _____



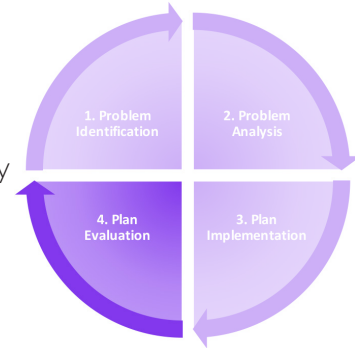
STEP 4. PLAN EVALUATION: Is the plan working?

1. IDENTIFY THE TIME PERIODS FOR EVALUATION

We recommend that teams assess plan implementation monthly and disproportionality outcomes quarterly.

Time Periods for Implementation Evaluation: _____

Time Periods for Outcomes Evaluation: _____



2. ASSESS IMPLEMENTATION PLAN PROGRESS (FROM STEP 3: PLAN IMPLEMENTATION)

Review implementation tasks completed since the last evaluation period and quality of implementation. Troubleshoot any barriers faced.

Number of Tasks Scheduled: _____

Number of Tasks Completed: _____

Percent of Tasks Completed: _____

3. CALCULATE DISPROPORTIONALITY METRICS AND COMPARE TO GOALS (FROM STEP 1: PROBLEM IDENTIFICATION)

Calculate and share all outcome metrics since the last evaluation period.

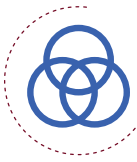
Metric	Goal	Previous Period	Current Period

4. SHARE RESULTS WITH STAFF, FAMILIES, AND COMMUNITY MEMBERS.

Share results with important groups, such as the whole school staff, families, community groups, and district administrators.

5. RETURN TO STEP 1: PROBLEM IDENTIFICATION.

At the end of the time period, compare the disproportionality metrics to the criterion for a summative evaluation of whether there is still disproportionality for the group of concern.



APPENDIX D: Action Plan for Identifying and Monitoring Disproportionality

Problem Solving Step	What	Who	By When	Completed?
1. Problem Identification <ul style="list-style-type: none"> Select metrics Calculate metrics Compare to a disproportionality criterion Identify if there is an inequity problem Set goals 	1.			
	2.			
	3.			
	4.			
	5.			
2. Problem Analysis <ul style="list-style-type: none"> Identify vulnerable decision points Assess fidelity of Tier 1 systems Assess inequities in other school data Learn from students, families, and community members 	1.			
	2.			
	3.			
	4.			
	5.			
3. Plan Implementation <ul style="list-style-type: none"> Develop a solution Create a detailed action plan 	1.			
	2.			
	3.			
	4.			
	5.			
4. Plan Evaluation <ul style="list-style-type: none"> Identify the time periods for evaluation Assess implementation plan progress Calculate metrics (From Step 1) Compare to goals Share results with staff, families, and community members Return to Step 1 	1.			
	2.			
	3.			
	4.			
	5.			