Disproportionality Technical Document

Calculating Significant Disproportionality and Disproportionate Representation

January 2024

Department of Education & Workforce

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Introduction

Significant disproportionality in special education identification (20 U.S.C. 1418(d) and 34 §§ CFR 300.646-647) and disproportionate representation (Indicators 9 & 10) (20 U.S.C. 1416(a)(3)(c)) represent two distinct federal Individuals with Disabilities Education Act (IDEA) requirements around equity. This resource outlines the differences and similarities in methodology used for these two equity requirements and provides examples of calculations for each category of analysis. All terms in **bold font** can be found in the glossary of terms. This document will use "districts" to refer to both districts and community schools.

Disproportionality is an equity measure and occurs when students from a racial or ethnic group are identified for special education, placed in more restrictive settings, or disciplined at markedly higher rates than their peers. Disproportionality becomes significant when the overrepresentation exceeds a threshold defined by each state.

Districts with **significant disproportionality** must:

- Review their policies, procedures and practices related to identification, placement, and discipline of students with disabilities.
- Identify the factors that may be contributing to the significant disproportionality.
- Redirect 15 percent of federal special education funds toward services designed to address the contributing factors, including professional development, educational and behavioral evaluations, services and supports.

Disproportionality regulations require states to calculate disproportionality within 14 categories for each of the seven racial groups (American Indian, Asian, Black, Hispanic, Multiracial, Pacific Islander, and White). There is potential for a maximum of 98 calculations per district if the district enrolls enough students in each racial category to complete the calculations. Table 1 lists the 14 categories of analysis.

Table 1. Categories of analysis for significant disproportionality.

Identification (All students ages 3-21)	Placement (Students with disabilities ages 6-21)	Discipline (Students with disabilities ages 3-21)
- All Disabilities - Intellectual Disabilities - Specific Learning Disabilities - Emotional Disturbance - Speech or Language Impairments - Other Health Impairments - Autism	- Inside a regular class for less than 40 percent of the day - Inside separate schools and residential facilities	- Out-of-school suspensions & expulsions of 10 days or fewer - Out-of-school suspensions & expulsions of more than 10 days - In-school suspensions of 10 days or fewer - In-school suspensions of more than 10 days - Disciplinary removals in total

Disproportionate representation is an equity measure and occurs when students from a racial or ethnic group are identified for special education, including within specific disability categories, at a markedly higher rate than their peers of other races.

Districts with **disproportionate representation** must:

- Complete a review of student records with the Department.
- Review their policies, procedures and practices related to identification, placement, and discipline of students with disabilities.
- Identify and address the factors that may be contributing to the significant disproportionality.

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Federal regulations require states to calculate disproportionate representation within seven categories for each of the seven racial groups (American Indian, Asian, Black, Hispanic, Multiracial, Pacific Islander, and White). Table 2 lists the categories of analysis.

Table 2. Categories of analysis for disproportionate representation.

Indicator 9 (All students ages 5 and in kindergarten through 21)	Indicator 10 (All students ages 5 and in kindergarten through 21)
• All Disabilities	• Intellectual Disabilities • Specific Learning Disabilities • Emotional Disturbance • Speech or Language Impairments • Other Health Impairments • Autism

Standard Significant Disproportionality Methodology

Federal regulations require that states use a standard methodology for calculating significant disproportionality in the 14 categories listed in the introduction. The standard methodology includes a risk ratio, an alternate risk ratio, and minimum cell and n-sizes. States are allowed flexibility in the risk ratio threshold, in the number of years used to determine significant disproportionality and in considering progress toward the threshold. All decisions for Ohio's methodology were made with stakeholder input.
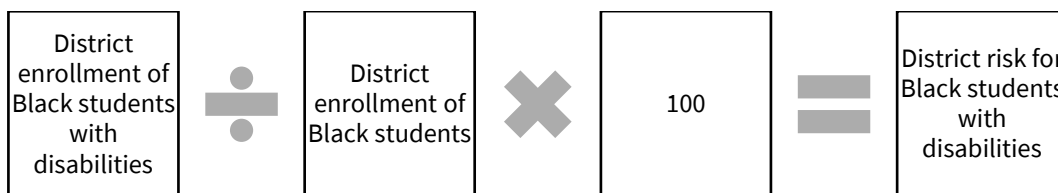
Risk Ratio

Risk ratios analyze disparities for seven racial groups, comparing students in each racial group to students of all other races within the district across all 14 categories of analysis. A risk ratio is a numerical comparison, expressed as a decimal, between the risk of a specific outcome for a specific racial or ethnic group in a district and the risk of that same outcome for students of all other races in the district.
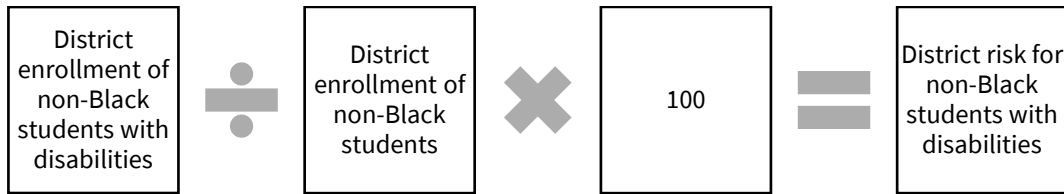
Risk measures the likelihood of students within a racial group to receive an educational outcome and is expressed as a percentage or proportion. To calculate risk,

1) Divide the number of students in a racial group who receive an educational outcome by the number of all students in the same racial group enrolled in the district.
2) Multiply that number by 100.
3) The result is the likelihood of students in this racial group to receive this educational outcome expressed as a percentage.

For example, risk is calculated by dividing the number of Black students who are identified with disabilities by the number of all Black students enrolled in the district and multiplying by 100. If there are 40 Black students in the district who are identified with disabilities out of a total of 200 Black students in the district, the risk of educators identifying a Black student with a disability is 40 ÷ 200 x 100 = 20 percent.

$$\boxed{\begin{array}{c}\text{District}\\\text{enrollment of}\\\text{Black students}\\\text{with}\\\text{disabilities}\end{array}} \div \boxed{\begin{array}{c}\text{District}\\\text{enrollment of}\\\text{Black students}\end{array}} \times \boxed{100} = \boxed{\begin{array}{c}\text{District risk for}\\\text{Black students}\\\text{with}\\\text{disabilities}\end{array}}$$

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A risk ratio compares the likelihood students in a racial group will experience an outcome compared to the risk students of all other races will experience that outcome. For example, the risk of a Black student being identified with a disability is 40 ÷ 200 x 100 = 20 percent as calculated above. If 200 out of the 2,000 non-Black students—the **comparison group**—in the district are identified with disabilities, then the risk of educators identifying students of all other races with disabilities is 200 ÷ 2,000 x 100 = 10 percent.

District enrollment of non-Black students with disabilities	÷	District enrollment of non-Black students	×	100	=	District risk for non-Black students with disabilities

The risk ratio is calculated by dividing the risk of a Black student being identified with a disability by the risk of all students of all other races being identified with disabilities. The risk ratio for Black students in the district being identified with disabilities is 20 ÷ 10 = 2.00. Generally, a risk ratio of 1.00 indicates students from a given racial group are no more or less likely than students from all other racial groups to experience a particular outcome. A risk ratio of 2.00 indicates one group is twice as likely as all other students to experience that outcome. In this example, a Black student in this district is twice as likely to be identified with disabilities as students of all other races in this district.

To calculate the risk ratio for Black students identified with disabilities, divide the district risk for Black students identified with disabilities by the district risk for non-Black students identified with disabilities.

District risk for Black students with disabilities	÷	District risk for non-Black students with disabilities	=	Risk ratio for Black students with disabilities
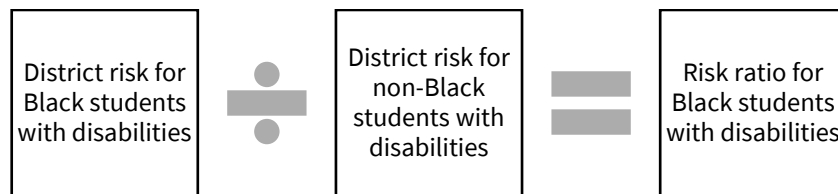
More detailed information about the risk and risk ratio calculations for each of the 14 categories of significant disproportionality analysis are included later in this document.

Minimum Cell and N-size

The **minimum cell size** is a minimum number of students experiencing a particular outcome. In the calculation of risk ratios, minimum cell size applies to the numerator in the fraction for calculating the risk for a racial group. Ohio's minimum cell size is 10. For example, if two out of 20 Asian students are identified with emotional disturbance, that is a risk of 2 ÷ 20 x 100 = 10 percent. However, the risk numerator of two is less than the minimum cell size of 10, so the state would not calculate the risk ratio for Asian students identified with emotional disturbance for this district.

Minimum cell size also applies to the numerator in the fraction for calculating risk of the comparison group, which is students in all other racial groups. For example, if 30 out of 1,500 White students in a district are identified with autism, that is a risk of 30 ÷ 1,500 x 100 = 2 percent. If only five of the 500 students in other racial groups are identified with autism, a regular risk ratio would not be calculated for White students because the risk numerator of five for the comparison group is less than the minimum cell size of 10.

The **minimum n-size** is comparable to minimum cell size. The minimum n-size is a minimum number of students enrolled in a district to be used as the denominator when calculating either the risk for a racial group or the comparison group, which is students in all other racial groups. Ohio's minimum n-size is 30. For example, a district has enrolled 490 White students out of 500 total students. In any of the 14 risk ratio calculations for White students, the number of students in the comparison group is 10, which is smaller than Ohio's minimum n-size of 30. The state cannot calculate risk ratios for White students in this district.

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If a district does not meet the minimum cell size or n-size for the comparison group, an alternate risk ratio must be calculated, as required by the federal disproportionality regulations.

Alternate Risk Ratios

The alternate risk ratio is very similar to the risk ratio, which compares the likelihood students in a racial group will experience an outcome compared to the risk students of all other races will experience that outcome within a district. The **alternate risk ratio** compares the risk of a racial group experiencing an outcome *within a district* to the risk of all other racial groups experiencing that outcome *in the state*. The alternate risk ratio uses the district-level risk for the racial group in the numerator and the state-level risk for the comparison group in the denominator. Ohio has set the minimum cell size at 10 and the minimum n-size at 30. If the racial group being analyzed meets the minimum cell size and n-size but the comparison group in the district does not, then the state will calculate the alternate risk ratio. If the racial group being analyzed meets the minimum cell or n-size but the state's comparison group does not, the state will not calculate the alternate risk ratio. Figure 1 walks through the steps of determining when to calculate an alternate risk ratio.

Figure 1. How to determine when to use an alternate risk ratio.

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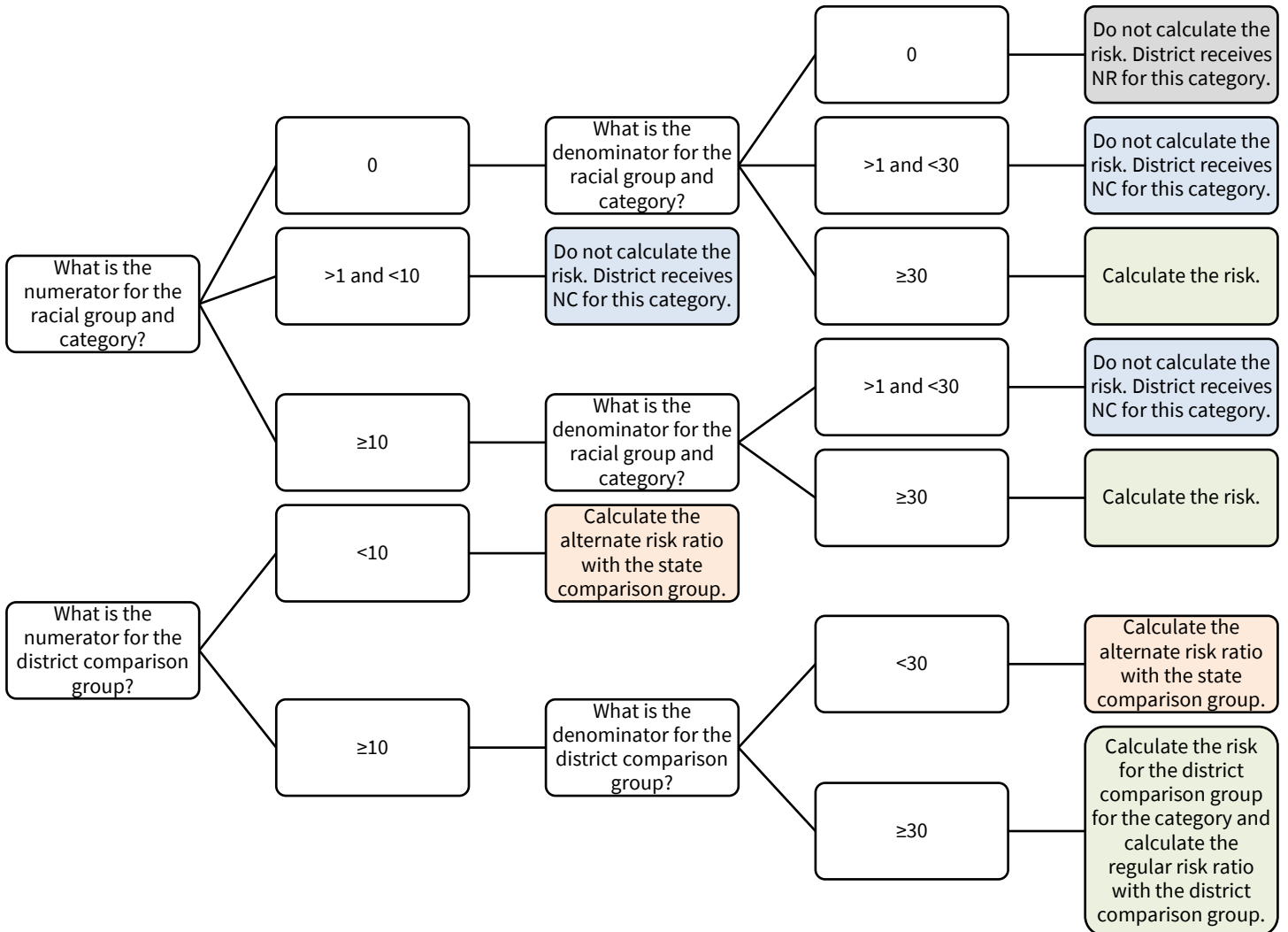
For example:

- A district has enrolled 490 White students out of 500 total students.
- Seventy of these students have been identified with a disability.
- The risk of educators identifying White students with a disability in this district is 70 ÷ 490 x 100 = 14.28 percent.
- The comparison group—students in all other racial groups—includes only 10 students. Ten is less than the state's minimum n-size of 30. The state must calculate an alternate risk ratio.
- The state has enrolled 78,618 non-White students with disabilities of 516,342 total non-White students.
- The risk of educators identifying non-White students with disabilities in the state is 78,618 ÷ 516,342 x 100 = 15.22 percent.
- The alternate risk ratio for White students identified with disabilities is 14.28 ÷ 15.22 = 0.94.

This district does not have significant disproportionality for White students identified with disabilities because the risk ratio is lower than Ohio's threshold of 2.50. Educators in this district are no more likely to identify White students with disabilities than students from all other racial groups. Table 3 shows each step of the calculation for an alternate risk ratio example. In this example, the district's risk ratio is below the 2.50 threshold for each of the three years and does not have significant disproportionality for White students with disabilities.

Table 3. Step-by-step example of an alternate risk ratio calculation for White students identified with disabilities. A risk ratio under 2.50 is not considered significant in Ohio and is highlighted in green to signify the fictional district has met the state target.

Step	Regular Risk Ratio	2020-2021	2021-2022	2022-2023	Alternate Risk Ratio	2020-2021	2021-2022	2022-2023
A	**District** enrollment of White students with disabilities	55.08	55.85	52.50	n/a	n/a	n/a	n/a
B	**District** enrollment of White students	488.30	434.62	423.69	n/a	n/a	n/a	n/a
C* = A ÷ B	**District** risk for White students with disabilities	11.28%	12.85%	12.39%	n/a	n/a	n/a	n/a
D	**District** enrollment of non-White students with disabilities	5.86	8.46	7.00	**State** enrollment of non-White students with disabilities	75,777.17	78,122.18	81,084.87
E	**District** enrollment of non-White students	75.74	57.03	51.43	**State** enrollment of non-White students	489,346.16	498,193.62	506,715.65
F* = D ÷ E	**District** risk for non-White students with disabilities	<10 non-White students with disabilities AND <30 non-White students enrolled	<10 non-White students with disabilities AND <30 non-White students enrolled	<10 non-White students with disabilities AND <30 non-White students enrolled	**State** risk for non-White students with disabilities	15.49%	15.68%	16.00%
G = C ÷ F	Risk ratio for White students	Alternate	Alternate	Alternate	Risk ratio for White students	0.73	0.82	0.77

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

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State Flexibility in the Standard Methodology for Significant Disproportionality

States are allowed flexibility in the risk ratio threshold, in the number of years used to determine significant disproportionality and in considering progress toward the threshold. All decisions for Ohio's methodology were made with stakeholder input.

Risk Ratio Threshold

A **risk ratio threshold** is the point at which the risk ratio in each category indicates significant disproportionality. If a district's risk ratio exceeds the threshold set by the state, the district has significant disproportionality. Ohio's risk ratio threshold is 2.50 for all 14 categories of analysis. In our example on page 2 of Black students being identified with disabilities, the risk ratio was 2.00. This district would not be flagged for significant disproportionality in this category. However, if in the same district, educators are four times more likely to identify Hispanic students with disabilities, the risk ratio for Hispanic students identified with disabilities is 4.00. That disproportionality is significant. A risk ratio threshold is considered within the multi-year flexibility provision.

Multi-year Flexibility

States are required to annually examine districts for significant disproportionality. However, states are not required to identify a district with significant disproportionality until the district has exceeded the risk ratio threshold for up to three prior consecutive years. The multi-year flexibility was designed to account for small changes in district enrollment that could cause large changes in a risk ratio. Ohio considers risk ratios for the three most current years when identifying districts with significant disproportionality.

Figure 2 provides an example. District A would not be identified with significant disproportionality for Multiracial students identified with disabilities because its risk ratio only exceeded the 2.50 threshold in the most recent school year. However, District B would be identified with significant disproportionality for Multiracial students identified with disabilities because its risk ratio exceeded the 2.50 threshold for the three most recent school years.

Figure 2. Example of the multi-year flexibility for identifying significant disproportionality.

District A
Multiracial - All Disabilities

District B
Multiracial - All Disabilities
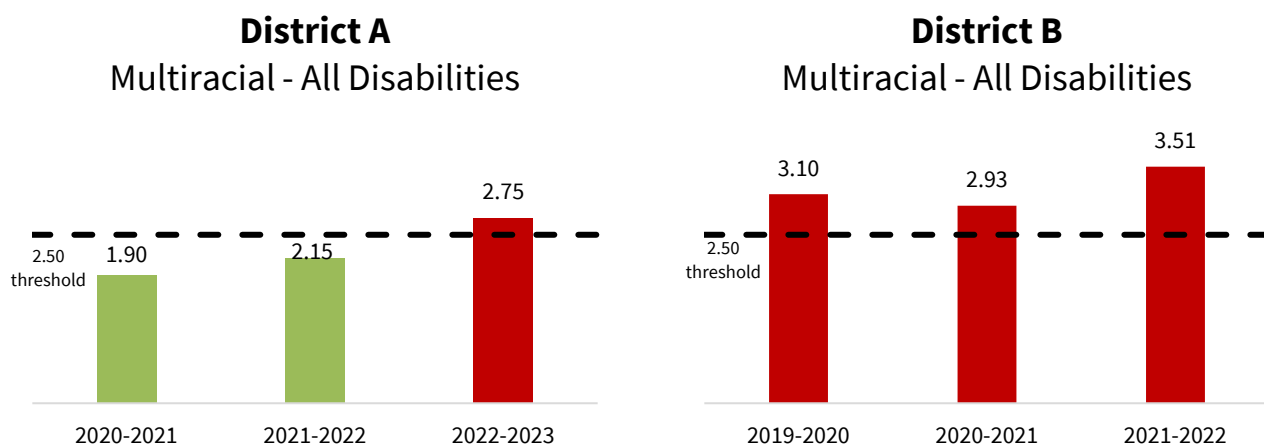
Reasonable Progress

Reasonable progress is intended to prevent state disruption to meaningful efforts to reduce significant disproportionality. A district has demonstrated reasonable progress when its risk ratio has exceeded the threshold for three consecutive years but has lowered by an increment set by the state for two consecutive years. Ohio has set reasonable progress at 0.25. For example, if a district has a risk ratio greater than 2.50 for three consecutive years, but

the risk ratio has decreased by at least 0.25 for two consecutive years, then the district has demonstrated reasonable progress. The district will not be flagged for significant disproportionality. This means the risk ratio for the second year must be at least 0.25 less than the first year and the risk ratio for the third year must be at least 0.25 less than the second year. Figure 3 shows an example. This district's risk ratio for Multiracial students identified with disabilities exceeds the 2.50 threshold for the three most recent years **and** its risk ratio has decreased by at least 0.25 for two consecutive years. Its risk ratio decreased by 0.35 from 2020-2021 to 2021-2022 and decreased by another 0.44 from 2021-2022 to 2022-2023.

Figure 3. Example of a district not being identified with significant disproportionality by meeting the reasonable progress provision.
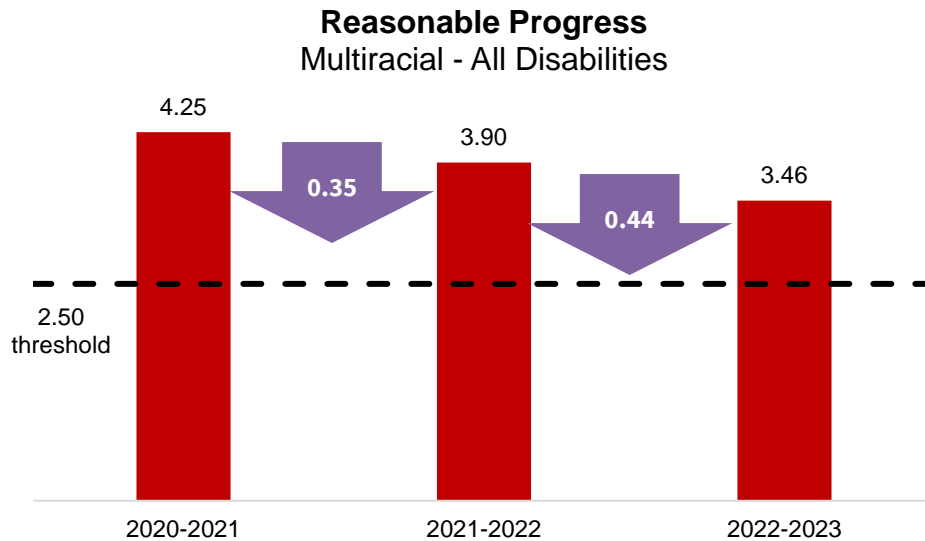
Summary of Ohio's Significant Disproportionality Methodology

Table 4 lists Ohio's previous and new regulations for calculating significant disproportionality.

Table 4. Summary of Ohio's Significant Disproportionality Methodology.

Element	Significant Disproportionality Regulations
Identification	• All disabilities • Six disability categories • Ages 3-21 (ages 3-5 included beginning with the 2020-2021 Special Education Profile)
Placement	• Inside regular classroom <40 percent • Separate placement
Discipline	• Out-of-school suspensions and expulsions >10 cumulative days • Out-of-school suspensions and expulsions ≤10 cumulative days • In-school suspension >10 days • In-school suspension ≤10 days • Total disciplinary removals

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Element	Significant Disproportionality Regulations
Calculation	• Risk ratio >2.50 • Alternate risk ratio >2.50
Cell size	• All numerators = 10
N-size	• All denominators = 30
Multi-year Flexibility	• Three consecutive years
Reasonable Progress	• Risk ratio reduction of 0.25 or more for two consecutive years

Ohio's Methodology for Disproportionate Representation

Disproportionate representation is calculated using a risk ratio which compares the likelihood of a student in a particular group to be identified for special education compared to the likelihood for a non-group peer. The Department convened stakeholders on multiple occasions to provide recommendations on Ohio's methodology for calculating disproportionality, and has aligned the methodology for disproportionate representation to significant disproportionality to the extent possible. Based on stakeholder input and federal requirements, the Department uses the methods described below.

Risk Ratio and Risk Ratio Threshold

Ohio has aligned the methodology for disproportionate representation to significant disproportionality to the extent possible, and calculates disproportionate representation using a risk ratio. Ohio has set **the state's risk ratio threshold to 2.50**. This means that districts and community schools will be identified with disproportionate representation when students in a specific racial group are more than two and a half times as likely as their peers to be identified for special education. A consensus exists among stakeholders that if a particular group of students is subject to disproportionate identification or consequences at a rate that is at least two and a half times their peers, this is of sufficient significance to require a district or community school to focus deliberately and aggressively on addressing the causes.

Minimum Cell and N-size

For a ratio to be calculated, Ohio has established the threshold for the number of students in a subgroup at **30 students (minimum n-size)**, and the threshold for the number of students impacted at **10 students (cell size)**. These levels are within federally defined parameters and are reasonable and statistically sound. This means, for example, the Department of Education and Workforce (the Department) will calculate whether a district or community school's Asian students are disproportionally identified as students with disabilities *only* if the district enrolls at least 10 Asian students with disabilities (minimum cell size) and at least 30 Asian students in the total student population (minimum n-size).

Alternate Risk Ratios

When a racially homogeneous district or community school does not enroll enough students of other races to form a comparison group, an **alternate risk ratio** that compares the district or community school to the whole state is used. The state-level risk then provides a comparison for district (or school)-level risk. For example, if a district or community school's predominant racial group is white students, such that they do not enroll enough non-white students to form a comparison group, the risk for their white students is compared to the risk for all non-white students in the state. Figure 1 on page 5 walks through the steps of determining when to calculate an alternate risk ratio.

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Multi-year Flexibility

Ohio will use **three consecutive years of risk ratios** that exceed the 2.50 threshold to prevent false findings, account for anomalies and identify systemic patterns.

Differences Between Disproportionate Representation and Significant Disproportionality

Disproportionate representation (Indicators 9 & 10) (20 U.S.C. 1416(a)(3)(c)) and significant disproportionality in special education identification (20 U.S.C. 1418(d) and 34 §§ CFR 300.646-647) represent two distinct IDEA requirements around equity. The differences between these two federal requirements are:

- Significant disproportionality in special education identification must include students ages 3 through 21, while disproportionate representation (Indicators 9 & 10) must include only students ages 5 and in kindergarten through age 21.
- Methodology for significant disproportionality in special education identification may consider reasonable progress, while reasonable progress is not presented as an option for disproportionate representation (Indicators 9 & 10).
- Unlike significant disproportionality, disproportionate representation (Indicators 9 & 10) does not require districts or community schools to redirect funds.

Ohio's methodology for disproportionate representation (Indicators 9 & 10) and significant disproportionality are otherwise the same, in that both calculations are based on:

- Regular and alternate risk ratios;
- A risk ratio threshold of 2.50;
- 3 consecutive years of data;
- A minimum cell size of 10; and
- A minimum n-size of 30.

Ohio's Significant Disproportionality Business Rules

This section details the business rules and calculations for each category of significant disproportionality. Examples are provided for each category. Descriptions of each of the 98 potential calculations are located on the Special Education Profile accessed through your OH│ID account.

In Ohio, disproportionality is calculated based on the data reported by each district in the Education Management Information System (EMIS). Across all categories, enrollment data are calculated based on full-time equivalency. Full-time equivalency provides a precise risk ratio calculation based on the amount of time each student was enrolled in the district during the school year.

The target for each category of analysis is ≤2.50. Districts are identified with significant disproportionality when their risk ratios exceed the 2.50 threshold for three consecutive years for the same racial group in the same category. Districts that reduce their risk ratios by at least 0.25 for two consecutive years qualify for the reasonable progress provision. Though still exhibiting ratios above 2.50, districts will have demonstrated progress in lowering their risk ratios and redirection of funds will not be required; however, technical assistance would be continued.

Notes:

- **All students** are included in the calculations for Identification, while **only students with disabilities** are considered in the calculations for Placement and Discipline.

- Ohio's business rules for disproportionate representation align with the business rules for significant disproportionality in special education identification apart from the age of students included and the use of the reasonable progress provision.
  - Disproportionate representation includes only students ages 5 and in kindergarten through preschool.
  - Disproportionate representation does not consider reasonable progress.

Identification for Special Education

Eligibility

The calculations for significant disproportionality in identification include:

- Students ages 3 through 21.
- Students with and without disabilities reported in Student Detail Effective Date (FD) record in the Education Management Information System (EMIS).
- Students count with the legal district of residence, which is the district legally responsible for providing a free and appropriate public education for the student during the school year. For students enrolled in community schools, the community school becomes the district legally responsible for providing a free and appropriate public education for the student.

Prioritization/Selection

Data are calculated for traditional districts, community schools, state-supported schools, and Science, Technology, Engineering and Mathematics (STEM) schools. These local educational agencies will be referred to as "districts" throughout this document.

Calculation and Methodology

Enrollment

- Calculations include students with full-time equivalency at the legal district of residence for the student. The legal district of residence is responsible for providing a free and appropriate public education (FAPE) for every eligible child in its jurisdiction, regardless of where services are provided. As such, students are counted at the legal district residence for these calculations.
  - If the student is enrolled, attending and has a full-time equivalency with a community school, the community school becomes the district responsible for providing a free and appropriate public education for the student.
  - The educational relationship between the student and the district = 1.
    - 1 = The student is receiving instruction, in whole or in part, from the reporting district.
  - Student has not been withdrawn with a withdrawal code of 81.
    - 81 = Student Reported in Error – Never should have been reported.
- Students with changes to their Student Standing (FS) and Student Attributes-Effective Date (FS) records will have full-time equivalency calculated.
- For Identification 1, if a student with a disability has more than one full-time equivalency calculated (due to change in the FS/FD records), the cumulative full-time equivalency will be calculated for the student. For Identifications 2-7, the student's cumulative full-time equivalency (if more than one full-time equivalency has been calculated) will be calculated based on the disability code reported for the student.
- Preschool enrollment includes students who are aged 3 through 6 reported with a grade level of PS.
  - Students must be three years old by June 30 of the school year included in the calculation. For example, a student must be three years old by June 30, 2023 to be included in the 2022-2023 school year calculation. Students younger than three years old are excluded from the calculation.

- Students outside of the preschool range reported with a grade level of PS, due to data reporting errors, are excluded from preschool enrollment. These students will be included in school-age enrollment and will only be included one time.

Race/Ethnicity

The calculations for significant disproportionality in identification include all racial codes listed in the Student Demographic Record (GI) in the Education Management Information System (EMIS). These codes align to the federal regulations.

- I – American Indian or Alaska Native
- A – Asian
- B – Black or African American (Non-Hispanic)
- H – Hispanic/Latino
- M – Multiracial
- P – Native Hawaiian or Other Pacific Islander
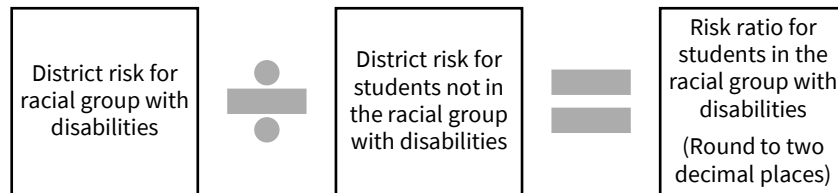- W – White, Non-Hispanic

IDEA Disability Identification

The calculations for significant disproportionality in identification include students identified and reported with disability condition codes during the current school year.

- Identification 1 includes all disability categories in the Student Attributes – Effective Date record (FD):
  - 01 - Multiple Disabilities (other than Deaf-Blind)
  - 02 - Deaf-Blindness
  - 03 - Deafness (Hearing Impairment)
  - 04 - Visual Impairments
  - 05 - Speech and Language Impairments
  - 06 - Orthopedic Impairments
  - 08 - Emotional Disturbance (SBH)
  - 09 - Intellectual Disabilities (Formerly Mental Retardation, Developmentally Handicapped, or Cognitive Disabilities)
  - 10 - Specific Learning Disabilities
  - 12 - Autism
  - 13 - Traumatic Brain Injury (TBI)
  - 14 - Other Health Impaired (Major)
  - 15 - Other Health Impaired (Minor)
  - 16 - Developmental Delay
- Identification 2 includes all students reported with an Intellectual Disability (ID/CD) in the Student Attributes – Effective Date record (FD): 09 - Intellectual Disabilities (Formerly Mental Retardation, Developmentally Handicapped, or Cognitive Disabilities)
- Identification 3 includes all students reported with a Specific Learning Disability (SLD) in the Student Attributes – Effective Date record (FD): 10 – Specific Learning Disabilities
- Identification 4 includes all students reported with an Emotional Disturbance Disability (ED) in the Student Attributes – Effective Date record (FD): 08 – Emotional Disturbance
- Identification 5 includes all students reported with a Speech or Language Impairment (SLI) in the Student Attributes – Effective Date record (FD): 05 – Speech and Language Impairments
- Identification 6 includes all students reported with Other Health Impairments (OHI)-Minor in the Student Attributes – Effective Date record (FD): 15 – Other Health Impaired (Minor)
- Identification 7 includes all students reported with Autism (AUT) in the Student Attributes – Effective Date record (FD): 12 - Autism

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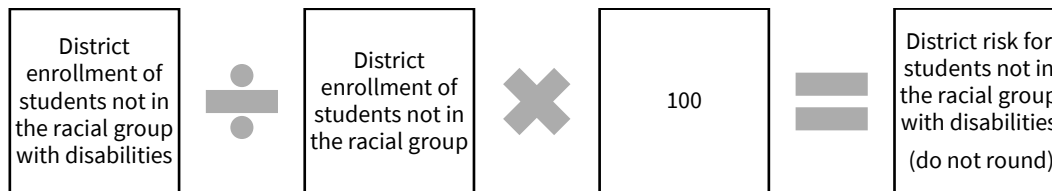
Risk Ratio Calculation

The risk ratio is calculated by dividing the risk for a racial group for disability category by the risk for the comparison group for disability category.

$$\boxed{\text{District risk for racial group with disabilities}} \div \boxed{\text{District risk for students not in the racial group with disabilities}} = \boxed{\text{Risk ratio for students in the racial group with disabilities (Round to two decimal places)}}$$

The risk for a racial group for disability category is calculated by dividing the total full-time equivalency of students for the racial group for disability category by the total full-time equivalency of students of the same racial ethnic group, then multiplying by 100.
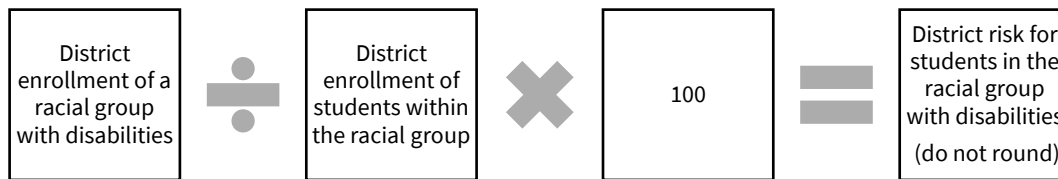
$$\boxed{\text{District enrollment of a racial group with disabilities}} \div \boxed{\text{District enrollment of students within the racial group}} \times \boxed{100} = \boxed{\text{District risk for students in the racial group with disabilities (do not round)}}$$

The risk for the comparison group for disability category is calculated by dividing the total full-time equivalency of all other students enrolled in the district in the disability category but **not** in the racial group by all other students enrolled in the district **not** in the racial group being measured, then multiplying by 100.

$$\boxed{\text{District enrollment of students not in the racial group with disabilities}} \div \boxed{\text{District enrollment of students not in the racial group}} \times \boxed{100} = \boxed{\text{District risk for students not in the racial group with disabilities (do not round)}}$$

To calculate a risk ratio, the district must meet the minimum cell size and n-size for the race being measured. As described previously, Ohio has set the minimum cell size to greater than or equal to 10 students and the minimum n-size to greater than or equal to 30 students.

If the minimum cell size or n-size are not met, the risk ratio is not calculated. If the minimum cell and n-size are met, the risk ratio is calculated.

- The minimum cell size is the risk numerator. The district must enroll at least 10 students with disabilities within the racial group to calculate the risk ratio.
- The minimum n-size is the risk denominator. The district must enroll at least 30 students within the racial group to calculate the risk ratio.

If the district does not meet the minimum cell size or n-size for the comparison group, then the district is subject to an alternate risk ratio calculation.

- The minimum cell size is the risk numerator. For the comparison group, the district must enroll at least 10 students with disabilities of all other races to calculate a regular risk ratio.
- The minimum n-size is the risk denominator. For the comparison group, the district must enroll at least 30 students of all other races to calculate a regular risk ratio.
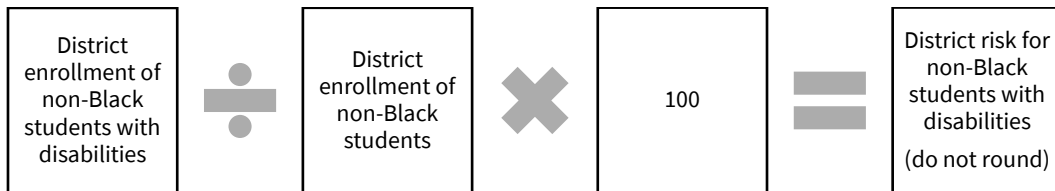
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Example Calculation for a Risk Ratio in Identification

One example of a disproportionality calculation for identification is provided below. To replicate the calculation for other racial groups, replace "Black" with the racial group of interest. To replicate the calculation for specific disability conditions, replace "disabilities" with the specific disability of interest.

To calculate risk for Black students identified with disabilities, divide the total full-time equivalency of Black students in the district with a reported disability condition code by the total full-time equivalency of Black students enrolled in the district and multiply by 100. Do not round the risk result.

District enrollment of Black students with disabilities	÷	District enrollment of Black students	×	100	=	District risk for Black students with disabilities (do not round)
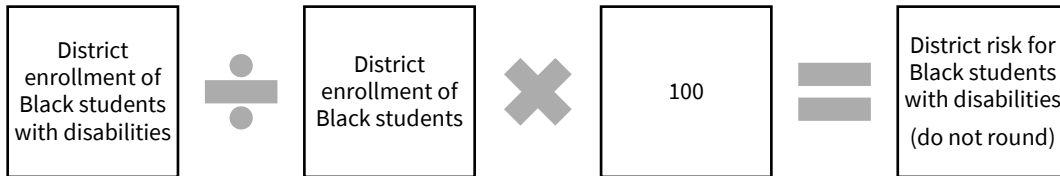
To calculate risk for non-Black students identified with disabilities (comparison group), divide the total full-time equivalency of students with disabilities of all other races (excluding Black students) in the district by the total full-time equivalency of students of all other races (excluding Black students) enrolled in the district and multiply by 100. Do not round the risk result.

District enrollment of non-Black students with disabilities	÷	District enrollment of non-Black students	×	100	=	District risk for non-Black students with disabilities (do not round)

To calculate the risk ratio for Black students identified with disabilities, divide the Black risk result by the non-Black risk result. Round to two decimal places.

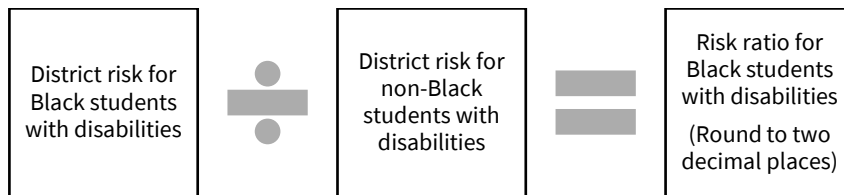| District risk for Black students with disabilities	÷	District risk for non-Black students with disabilities	=	Risk ratio for Black students with disabilities (Round to two decimal places)

Table 5 describes the steps involved in calculating a risk ratio for this example. In this example, the district does not have disproportionality for Black students with disabilities. In this district, educators are no more likely to identify Black students with students than students of all other races.

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Table 5. Step-by-step example calculation of a risk ratio for significant disproportionality in identification of Black students with disabilities. A risk ratio under 2.50 is not considered significant in Ohio and is highlighted in green to signify the fictional district has met the state target.

Step	Description	2020-21	2021-22	2022-23
A	**District** enrollment of Black students with disabilities	25.35	28.86	22.08
B	**District** enrollment of Black students	105.45	96.98	92.76
C* = A ÷ B	**District** risk for Black students with disabilities	24.05%	29.76%	23.80%
D	**District** enrollment of non-Black students with disabilities	15.86	23.69	26.29
E	**District** enrollment of non-Black students	105.09	104.14	106.68
F* = D ÷ E	**District** risk for non-Black students with disabilities	15.09%	22.75%	24.65%
G = C ÷ F	Risk Ratio for Black students	1.59	1.31	0.97

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Example Calculation for an Alternate Risk Ratio in Identification

If the comparison group in the district does not meet the minimum cell size or n-size, an alternate risk ratio is calculated. An alternate risk ratio compares the risk of a racial group experiencing an outcome *within a district* to the risk of all other racial groups experiencing that same outcome *in the state*. Figure 1 on page 5 describes how to determine whether an alternate risk ratio is required.

Table 6 describes the steps involved in calculating an alternate risk ratio using another racial category of identification for a different district. In this example, the district does not have disproportionality for White students identified with disabilities. None of the three risk ratios exceed the state's 2.50 threshold and indicates educators in this district are approximately as likely to identify White students with disabilities as students of all other races.

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Table 6. Step-by-step example calculation of an alternate risk ratio for significant disproportionality in identification of White students with disabilities. A risk ratio under 2.50 is not considered significant in Ohio and is highlighted in green to signify the fictional district has met the state target.

Step	Regular Risk Ratio	2020-21	2021-22	2022-23	Alternate Risk Ratio	2020-21	2021-22	2022-23
A	**District** enrollment of White students with disabilities	254.02	253.89	261.39				
B	**District** enrollment of White students	2,508.21	2,574.19	2,489.95				
C* = A ÷ B	**District** risk for White students with disabilities	10.13%	9.86%	10.50%				
D	**District** enrollment of non-White students with disabilities	5.94	4.84	4.81	**State** enrollment of non-White students with disabilities	75,777.17	78,122.18	81,084.87
E	**District** enrollment of non-White students	63.53	67.57	78.99	**State** enrollment of non-White students	489,346.16	498,193.62	506,715.65
F* = D ÷ E	**District** risk for non-White students with disabilities	<10 non-White students identified with disabilities	<10 non-White students identified with disabilities	<10 non-White students identified with disabilities	**State** risk for non-White students with disabilities	15.49%	15.68%	16.00%
G = C ÷ F	Risk Ratio for White students	Alternate	Alternate	Alternate	Risk Ratio for White students	0.65	0.63	0.66

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Placement of Students with Disabilities

Eligibility

The calculations for significant disproportionality in educational placement include:
- Students ages 6 through 21.
- Students with disabilities reported in Student Detail Effective Date (FD) record in the Education Management Information System (EMIS).
- Students enrolled and attending the district responsible for providing a free and appropriate public education for the students. For students who are enrolled in community schools, the community schools now are responsible for providing a free and appropriate public education for the students.

Prioritization/Selection

Data are calculated for traditional districts, community schools, state-supported schools, and Science, Technology, Engineering and Mathematics (STEM) schools. These local educational agencies will be referred to as "districts" throughout this document.

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Calculation and Methodology

Enrollment

- Calculations include students with full-time equivalency at the legal district of residence for the student. The legal district of residence is responsible for providing a free and appropriate public education for the students.
  - If the student is enrolled, attending and has a full-time equivalency with a community school, the community school becomes the district responsible for providing a free and appropriate public education for the student.
  - The educational relationship between the student and the district = 1.
    - 1 = The student is receiving instruction, in whole or in part, from the reporting district.
  - Student has not been withdrawn with a withdrawal code of 81.
    - 81 = Student Reported in Error – Never should have been reported.
- Students with changes to their Student Standing (FS) and Student Attributes-Effective Date (FS) records will have full-time equivalency calculated.
- If a student with a disability has more than one full-time equivalency calculated (due to change in the FS/FD records), the cumulative full-time equivalency will be calculated for the student.

Race/Ethnicity

The calculations for significant disproportionality in educational placement include all racial codes listed in the Student Demographic Record (GI) in the Education Management Information System (EMIS). These codes align to federal regulations:

- I – American Indian or Alaska Native
- A – Asian
- B – Black or African American (Non-Hispanic)
- H – Hispanic/Latino
- M – Multiracial
- P – Native Hawaiian or Other Pacific Islander
- W – White, Non-Hispanic

IDEA Disability Identification

The calculations for significant disproportionality in educational placement include students identified and reported with a disability condition code during the current school year.

- All disability condition codes reported in the Student Attributes – Effective Date record (FD) are included:
  - 01 – Multiple Disabilities (other than Deaf-Blind)
  - 02 - Deaf-Blindness
  - 03 - Deafness (Hearing Impairment)
  - 04 - Visual Impairments
  - 05 - Speech and Language Impairments
  - 06 - Orthopedic Impairments
  - 08 - Emotional Disturbance (SBH)
  - 09 - Intellectual Disabilities (Formerly Mental Retardation, Developmentally Handicapped, or Cognitive Disabilities)
  - 10 - Specific Learning Disabilities
  - 12 - Autism
  - 13 - Traumatic Brain Injury (TBI)
  - 14 - Other Health Impaired (Major)
  - 15 - Other Health Impaired (Minor)
  - 16 - Developmental Delay

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Placement

- Student placement or least restrictive environment (LRE) codes are reported in the Student Special Education (GE) record for the current school year as an outcome of the individualized education program (IEP) event.
- The district of residence for the student is responsible for completing the student's individualized education program.
- The district of residence for the student must be report in the student's individualized education program in the Student Special Education (GE) record of the Education Management Information System (EMIS).
  - If the district of residence is not providing education and services to the student, the district still is responsible for reporting special education events but will report a district relationship of 2 or 3 based on the Student Standing Record (FS).
 - If the district is educating and providing services to the student, the district would report a district relationship of 1 in the Student Standing (FS) record.
    - 1 = The student is receiving instruction, in whole or in part, from the reporting district.
    - 2 = The student is receiving services but no instruction from the reporting district.
    - 3 = The student is receiving neither services nor instruction from the reporting district, but the reporting district has an obligation to submit data for the student in the Education Management Information System (EMIS).
- The student placement is reported with the student's individualized education program in the Outcome ID Element (GE120) in the Student Special Education (GE) record.
- The following Outcome IDs are used in this calculation:
  - Category 1 – Students with disabilities inside the regular class less than 40 percent of the day:
    - IE15 – Special education outside the regular class more than 60 percent of the day
  - Category 2 – Students with disabilities inside separate schools and residential facilities:
    - IE16 – Public Separate School
    - IE17 – Private Separate School
    - IE18 – Public Residential Facility
    - IE19 – Private Residential Facility

Risk Ratio Calculation

The risk ratio is calculated by dividing the risk for a racial group with a disability for a placement category by the risk for the comparison group for a placement category.
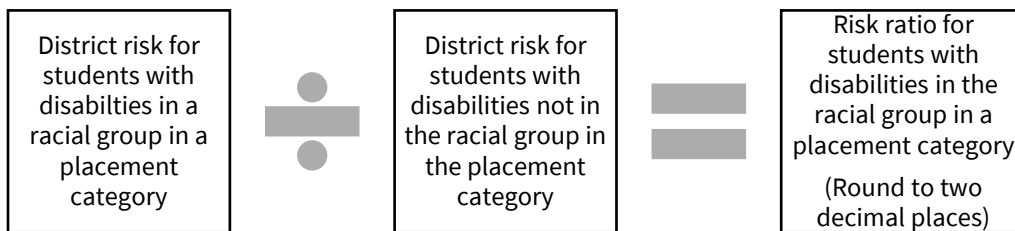
| District risk for students with disabilties in a racial group in a placement category | ÷ | District risk for students with disabilities not in the racial group in the placement category | = | Risk ratio for students with disabilities in the racial group in a placement category (Round to two decimal places) |

The risk for students with disabilities in a racial group in a placement category is calculated by dividing the total full-time equivalency of students with disabilities in the racial group in the placement category by the total number of students enrolled in the district of the same racial group, then multiplying by 100.

| District enrollment of students with disabilities in a racial group in a placement category | ÷ | District enrollment of students with disabilities within the racial group | × | 100 | = | District risk for students with disabilities in the racial group in the placement category (do not round) |

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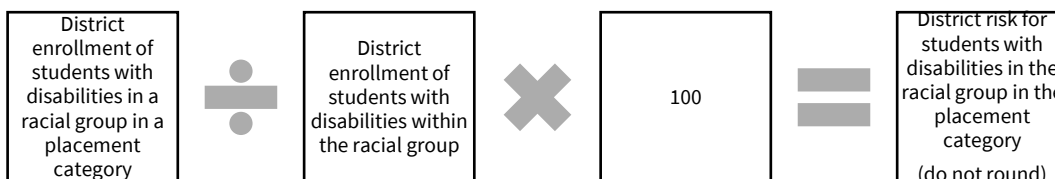
The risk for the comparison group for placement category is calculated by dividing the total full-time equivalency of all other students with disabilities enrolled in the district in the placement category but **not** in the racial/ethnic group by all other students enrolled in the district **not** in the racial group being measured, then multiplying by 100.

$$
\boxed{\substack{\text{District enrollment of}\\\text{students with}\\\text{disabilities not in}\\\text{the racial group in}\\\text{the placement}\\\text{category}}} \div \boxed{\substack{\text{District}\\\text{enrollment of}\\\text{students with}\\\text{disabilities not in}\\\text{the racial group}}} \times \boxed{100} = \boxed{\substack{\text{District risk for}\\\text{students with}\\\text{disabilities not in}\\\text{the racial group in}\\\text{the placement}\\\text{category}\\\text{(do not round)}}}
$$

To calculate a risk ratio, the district must meet the minimum cell size and n-size for the race being measured. Ohio has set the minimum cell size to greater than or equal to 10 students and the minimum n-size to greater than or equal to 30 students.

If the minimum cell size or n-size are not met, the risk ratio is not calculated. If the minimum cell and n-size are met, the risk ratio is calculated.

- The minimum cell size is the risk numerator. The district must enroll at least 10 students with disabilities within the racial group and placement category to calculate the risk ratio.
- The minimum n-size is the risk denominator. The district must enroll at least 30 students within the racial group to calculate the risk ratio.

If the district does not meet the minimum cell size or n-size for the comparison group, then the district is subject to an alternate risk ratio calculation.

- The minimum cell size is the risk numerator. For the comparison group, the district must enroll at least 10 students with disabilities of all other races in the placement category to calculate a regular risk ratio.
- The minimum n-size is the risk denominator. For the comparison group, the district must enroll at least 30 students of all other races to calculate a regular risk ratio.

Example Calculation for a Risk Ratio in Placement

One example for a disproportionality calculation for placement is provided below. To replicate the calculation for other racial groups, replace "Black" with the racial group of interest. To replicate the calculation for specific placement categories, replace "in separate settings" with the placement category of interest.

To calculate risk for Black students with disabilities placed in separate settings, divide the total full-time equivalency of Black students with disabilities in separate settings by the total full-time equivalency of Black students with disabilities enrolled in the district and multiply by 100. Do not round the risk result.

$$
\boxed{\substack{\text{District}\\\text{enrollment of}\\\text{Black students}\\\text{with disablties}\\\text{placed in separate}\\\text{settings}}} \div \boxed{\substack{\text{District}\\\text{enrollment of}\\\text{Black students}\\\text{with disabilities}}} \times \boxed{100} = \boxed{\substack{\text{District risk for}\\\text{Black students}\\\text{with disabilities}\\\text{placed in separate}\\\text{settings}\\\text{(do not round)}}}
$$
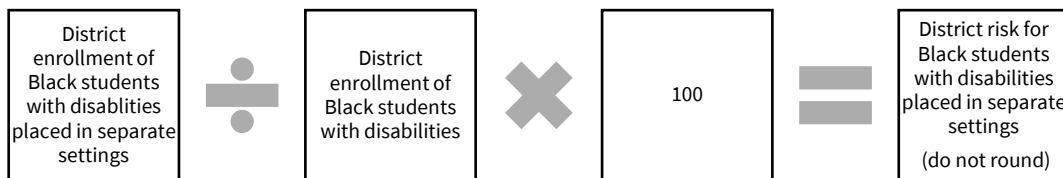
To calculate risk for non-Black students with disabilities placed in separate settings (comparison group), divide the total full-time equivalency of students with disabilities of all other races (excluding Black students) in separate settings by the total full-time equivalency of students with disabilities from all other races (excluding Black students) enrolled in the district and multiply by 100. Do not round the risk result.

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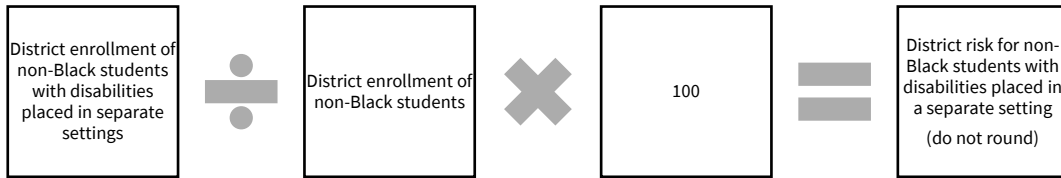
To calculate the risk ratio for Black students with disabilities in separate settings, divide the Black risk result by the non-Black risk result. Round to two decimal places.
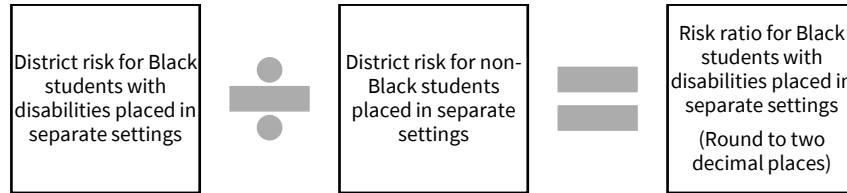
Table 7 describes the steps involved in calculating a risk ratio for this example. In this example, the district has disproportionality for Black students with disabilities placed in separate settings. Each of the three risk ratios of exceed the state's 2.50 threshold. The 2020-21 risk ratio of 3.92 indicates educators in this district are nearly four times more likely to place Black students in separate settings than students with disabilities of all other races.

Table 7. Step-by-step example calculation of a risk ratio for significant disproportionality in placement of Black students with disabilities in separate settings. A risk ratio over 2.50 is considered significant in Ohio and is highlighted in red to signify the fictional district has not met the state target.

Step	Description	2020-21	2021-22	2022-23
A	**District** enrollment of Black students with disabilities placed in separate settings	51.84	46.78	38.95
B	**District** enrollment of Black students with disabilities	2,259.39	2,145.50	2,067.48
C* = A ÷ B	**District** risk for Black students placed in separate settings	2.29%	2.18%	1.88%
D	**District** enrollment of non-Black students placed in separate settings	13.87	10.69	12.99
E	**District** enrollment of non-Black students with disabilities	2,728.20	2,695.62	2,704.61
F* = D ÷ E	**District** risk for non-Black students placed in separate settings	0.51%	0.40%	0.48%
G = C ÷ F	Risk Ratio for Black students with disabilities	4.51	5.50	3.92

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Example Calculation for an Alternate Risk Ratio in Placement

If the comparison group in the district does not meet the minimum cell size or n-size, an alternate risk ratio is calculated. An alternate risk ratio compares the risk of a racial group to experience an outcome *within a district* to the risk of all other racial groups to experience that same outcome *in the state*. Figure 1 on page 5 describes how to determine whether an alternate risk ratio is required.

Table 8 describes the steps involved in calculating an alternate risk ratio using the same category of placement as above for a different district. In this example, the district has disproportionality for Black students with disabilities placed in separate settings. Each of the risk ratios exceed the state's 2.50 threshold and indicate educators in this

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district are over four times more likely to place Black students with disabilities in separate settings than students of all other races in the state.

Table 8. Step-by-step example calculation of an alternate risk ratio for significant disproportionality in placement of Black students with disabilities in separate settings. A risk ratio over 2.50 is considered significant in Ohio and is highlighted in red to signify the fictional district has not met the state target.

Step	Regular Risk Ratio	2020-21	2021-22	2022-23	Alternate Risk Ratio	2020-21	2021-22	2022-23
A	**District** enrollment of Black students with disabilities placed in separate settings	35.30	33.19	35.32	n/a	n/a	n/a	n/a
B	**District** enrollment of Black students with disabilities	260.62	240.46	239.96	n/a	n/a	n/a	n/a
C* = A ÷ B	**District** risk for Black students with disabilities placed in separate settings	13.55%	13.80%	14.71%	n/a	n/a	n/a	n/a
D	**District** enrollment of non-Black students with disabilities placed in separate settings	4.43	4.76	4.92	**State** enrollment of non-Black students with disabilities placed in separate setting	2,380.51	2,283.41	2,723.63
E	**District** enrollment of non-Black students with disabilities	61.76	65.59	559.71	**State** enrollment of non-Black students with disabilities	75,892.36	78,257.72	81,226.91
F* = D ÷ E	**District** risk for non-Black students with disabilities placed in separate settings	<10 non-Black students with disabilities placed in separate settings	<10 non-Black students with disabilities placed in separate settings	<10 non-Black students with disabilities placed in separate settings	**State** risk for non-Black students with disabilities placed in separate settings	3.14%	2.91%	3.35%
G = C ÷ F	Risk Ratio for Black students with disabilities	Alternate	Alternate	Alternate	Risk Ratio for Black students with disabilities	4.32	4.73	4.39

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Discipline of Students with Disabilities

Eligibility

The calculations for significant disproportionality in discipline include:
- Students ages 3 through 21.
- Students with disabilities reported in Student Detail Effective Date (FD) record in the Education Management Information System (EMIS).
- Students enrolled and attending the district legally responsible for providing a free and appropriate public education for the student during the school year. For students who are enrolled in community schools, the

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community schools are legally responsible for a providing free and appropriate public education for the students.

Prioritization/Selection

Data are calculated for traditional districts, community schools, state-supported schools, and Science, Technology, Engineering and Mathematics (STEM) schools. These local educational agencies will be referred to as "districts" throughout this document.

Calculation and Methodology

Enrollment

- Calculations include students with full-time equivalency at the legal district of residence for the student. The legal district of residence is responsible for providing a free and appropriate public education for the students.
  - If the student is enrolled, attending and has a full-time equivalency with a community school, the community school becomes the district responsible for a providing free and appropriate public education for the student.
  - The educational relationship between the student and the district = 1.
    - 1 = The student is receiving instruction, in whole or in part, from the reporting district.
  - Student has not been withdrawn with a withdrawal code of 81.
    - 81 = Student Reported in Error – Never should have been reported.
- Students who are open enrolled to another district are reported by both the district of residence and the district the student is enrolled in:
  - The district of residence will report a district relationship of 3, meaning the district is responsible for reporting the student but is not educating or providing services to the student.
    - The district of residence will point to the district educating and serving the student.
  - The district of service for the student will report the student to the Education Management Information System (EMIS) as normal.
- Students with changes to their Student Standing (FS) and Student Attributes-Effective Date (FS) records will have full-time equivalency calculated.
- If a student with a disability has more than one full-time equivalency calculated (due to change in the FS/FD records), the cumulative full-time equivalency will be calculated for the student.

Race/Ethnicity

The calculations for significant disproportionality in discipline include all racial codes listed in the Student Demographic Record (GI) in the Education Management Information System (EMIS). These codes align to federal regulations:

- I – American Indian or Alaska Native
- A – Asian
- B – Black or African American (Non-Hispanic)
- H – Hispanic/Latino
- M – Multiracial
- P – Native Hawaiian or Other Pacific Islander
- W – White, Non-Hispanic

IDEA Disability Identification

The calculations for significant disproportionality in educational placement include students identified and reported with a disability condition code during the current school year.

- All disability condition codes reported in the Student Attributes – Effective Date record (FD) are included:
  - 01 – Multiple Disabilities (other than Deaf-Blind)

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- o 02 - Deaf-Blindness
- o 03 - Deafness (Hearing Impairment)
- o 04 - Visual Impairments
- o 05 - Speech and Language Impairments
- o 06 - Orthopedic Impairments
- o 08 - Emotional Disturbance (SBH)
- o 09 - Intellectual Disabilities (Formerly Mental Retardation, Developmentally Handicapped, or Cognitive Disabilities)
- o 10 - Specific Learning Disabilities
- o 12 - Autism
- o 13 - Traumatic Brain Injury (TBI)
- o 14 - Other Health Impaired (Major)
- o 15 - Other Health Impaired (Minor)
- o 16 - Developmental Delay

Discipline

- Student discipline events are reported in the Student Discipline (GD) record for the current school year.
- The district educating and providing special education services is responsible for reporting the Student Discipline (GD) record for each type of discipline administered.
  - o If the district of residence is educating and serving the student, the district of residence will report the discipline event.
  - o If the student is open enrolled to another district, the district of service is responsible for reporting the discipline event.
- Discipline events for each student count with the district that administered the discipline (the district educating and providing special education services to the student).
- The Total Discipline Days reported for the type of discipline is reported in full-time equivalency
- Five discipline categories are calculated for disproportionality:
  - o Category 1 – Out-of-school suspensions and expulsions of 10 cumulative days or fewer
    - ▪ Type of Discipline Element (GD070) codes included are:
      - 1 – Expulsion
      - 2 – Out-of-school Suspension
  - o Category 2 – Out of school suspensions and expulsions of more than 10 cumulative days
    - ▪ Type of Discipline Element (GD070) codes included are:
      - 1 – Expulsion
      - 2 – Out-of-school Suspension
  - o Category 3 – In-school suspensions of 10 cumulative days or fewer
    - ▪ Type of Discipline Element (GD070) codes included are:
      - 3 – In-school Suspension
  - o Category 4 – In-school suspensions of more than 10 cumulative days
    - ▪ Type of Discipline Element (GD070) codes included are:
      - 3 – In-school Suspension
  - o Category 5 – Total cumulative days of discipline removals including in-school and out-of-school suspensions, expulsions, in-school alternate discipline class/program/building, emergency removal by district personnel, and removal by hearing officer.
    - ▪ Type of Discipline Element (GD070) codes included are:
      - 1 – Expulsion
      - 2 – Out-of-school Suspension
      - 3 – In-school Suspension
      - 4 – In-school Alternate Discipline Class/Program/Building

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- 6 – Emergency Removal by District Personnel
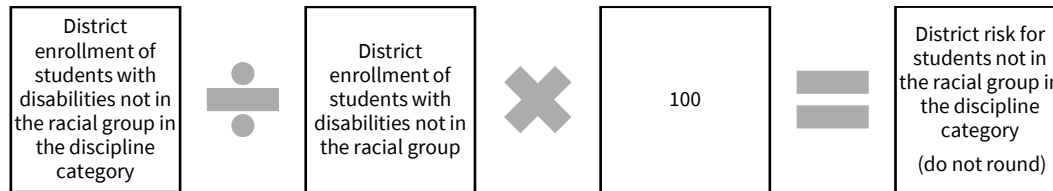- 7 – Removal by a Hearing Officer

Risk Ratio Calculation

The risk ratio is calculated by dividing the risk for a racial group with a disability for a discipline category by the risk for the comparison group for a discipline category.
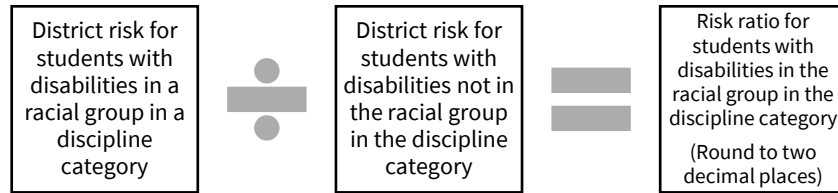
| District risk for students with disabilities in a racial group in a discipline category | ÷ | District risk for students with disabilities not in the racial group in the discipline category | = | Risk ratio for students with disabilities in the racial group in the discipline category (Round to two decimal places) |

The risk for students with disabilities in a racial group in a discipline category is calculated by dividing the total full-time equivalency of students with disabilities in the racial group in the discipline category by the total number of students of the same racial group enrolled in the district, then multiplying by 100.

| District enrollment of students with disabilities in a racial group in a discipline category | ÷ | District enrollment of students with disabilities within the racial group | × | 100 | = | District risk for students with disabilities in the racial group in the discipline category (do not round) |
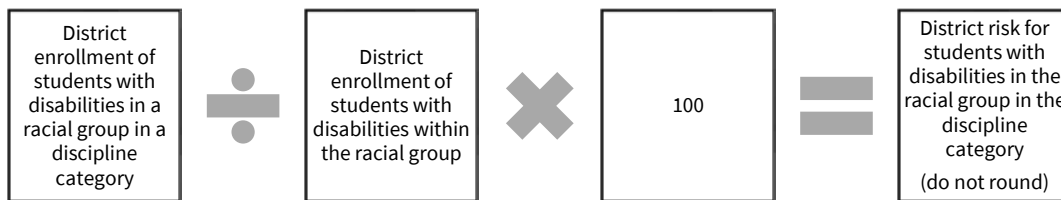
The risk for comparison group for discipline category is calculated by dividing the total full-time equivalency of all other students with disabilities enrolled in the district in the discipline category but **not** in the racial group by all other students enrolled in the district **not** in the racial group being measured, then multiplying by 100.

| District enrollment of students with disabilities not in the racial group in the discipline category | ÷ | District enrollment of students with disabilities not in the racial group | × | 100 | = | District risk for students not in the racial group in the discipline category (do not round) |

To calculate a risk ratio, the district must meet the minimum cell size and n-size for the race being measured. Ohio has set the minimum cell size to greater than or equal to 10 students and the minimum n-size to greater than or equal to 30 students.

If the minimum cell size or n-size are not met, the risk ratio is not calculated. If the minimum cell and n-size are met, the risk ratio is calculated.

- The minimum cell size is the risk numerator. The district must enroll at least 10 students with disabilities within the racial group and discipline category to calculate the risk ratio.
- The minimum n-size is the risk denominator. The district must enroll at least 30 students within the racial group to calculate the risk ratio.

If the district does not meet the minimum cell size or n-size for the comparison group, then the district is subject to an alternate risk ratio calculation.

- The minimum cell size is the risk numerator. For the comparison group, the district must enroll at least 10 students with disabilities of all other races in the discipline category to calculate a regular risk ratio.
- The minimum n-size is the risk denominator. For the comparison group, the district must enroll at least 30 students of all other races to calculate a regular risk ratio.

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Example Calculation for a Risk Ratio in Discipline

One example for a disproportionality calculation for discipline is provided below. To replicate the calculation for other racial groups, replace "Black" with another racial group of interest. To replicate the calculation for specific discipline categories, replace "≤10 days out-of-school suspensions and expulsions" with the discipline category of interest.

To calculate risk for Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions, divide the total full-time equivalency of Black students with disabilities with 10 or fewer cumulative days of out-of-school (OOS) suspensions and expulsions by the total full-time equivalency of Black students with disabilities enrolled in the district and multiply by 100. Do not round the risk result.

District enrollment of Black students with disabilities with ≤10 days OOS suspensions and expulsions	÷	District enrollment of Black students with disabilities	×	100	=	District risk for Black students with disabilities with ≤10 days OOS suspensions and expulsions (do not round)
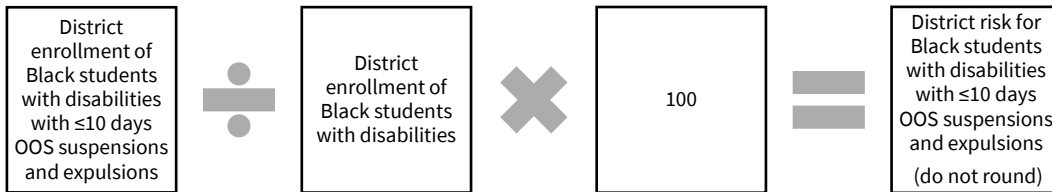
To calculate risk for non-Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions (comparison group), divide the total full-time equivalency of students with disabilities of all other races (excluding Black students) with 10 or fewer cumulative days of out-of-school suspensions and expulsions by the total full-time equivalency of students with disabilities from all other races (excluding Black students) enrolled in the district and multiply by 100. Do not round the risk result.

District enrollment of non-Black students with disabilities with ≤10 days OOS suspensions and expulsions	÷	District enrollment of of non-Black students with disabilities	×	100	=	District risk for non-Black students with disabilities with ≤10 days OOS suspensions and expulsions (do not round)

To calculate the risk ratio for Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions, divide the Black risk result by the non-Black risk result. Round to two decimal places.
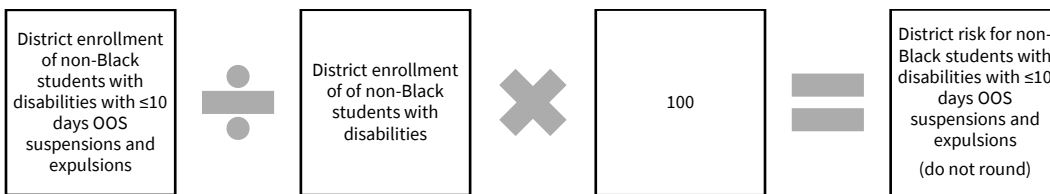
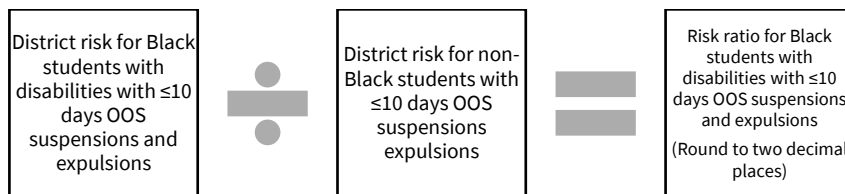| District risk for Black students with disabilities with ≤10 days OOS suspensions and expulsions	÷	District risk for non-Black students with disabilities with ≤10 days OOS suspensions expulsions	=	Risk ratio for Black students with disabilities with ≤10 days OOS suspensions and expulsions (Round to two decimal places)

Table 9 describes the steps involved in calculating a risk ratio for this example. In this example, the district does not have significant disproportionality for Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions. Each of the risk ratios is lower than the state's 2.50 threshold and indicates educators in this district are approximately two times more likely to discipline Black students with disabilities with 10 or fewer cumulative days out-of-school suspensions and expulsions than students all other races.

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Table 9. Step-by-step example calculation of a risk ratio for significant disproportionality for Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions. A risk ratio under 2.50 is not considered significant in Ohio and is highlighted in green to signify the fictional district has met the state target.

Step	Description	2020-21	2021-22	2022-23
A	**District** enrollment of Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions	583.59	612.37	706.68
B	**District** enrollment of Black students with disabilities	2,015.17	2,041.61	2,150.62
C* = A ÷ B	**District** risk for Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions	28.95%	29.99%	32.85%
D	**District** enrollment of non-Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions	282.05	258.81	289.72
E	**District** enrollment of non-Black students with disabilities	1,851.53	1,835.34	1,884.15
F* = D ÷ E	**District** risk for non-Black students with disabilities with 10 or fewer cumulative days of out-of-school suspensions and expulsions	15.23%	14.10%	15.37%
G = C ÷ F	Risk ratio for Black students with disabilities	1.90	2.13	2.14

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Example Calculation for an Alternate Risk Ratio in Discipline

If the comparison group in the district does not meet the minimum cell size or n-size, an alternate risk ratio is calculated. An alternate risk ratio compares the risk of a racial group to experience an outcome within a district to the risk of all other racial groups to experience that same outcome in the state. Figure 1 on page 4 describes how to determine whether an alternate risk ratio is required.

Table 10 describes the steps involved in calculating an alternate risk ratio using a different discipline category for a different district. In this example, the district does not have disproportionality for Black students with disabilities with disciplinary removals. Only one of the three risk ratios exceeds the state's threshold of 2.50. The 2020-21 risk ratio indicates educators in this district are just over two times more likely to discipline Black students with disabilities than students of all other races in the state.

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Table 10. Step-by-step example calculation of an alternate risk ratio for significant disproportionality for Black students with disabilities' total disciplinary removals. A risk ratio under 2.50 is not considered significant in Ohio and is highlighted in green to signify the fictional district has met the state target for that year. A risk ratio over 2.50 is considered significant in Ohio and is highlighted in red to signify the fictional district has not met the state target for that year.

Step	Regular Risk Ratio	2020-21	2021-22	2022-23	Alternate Risk Ratio	2020-21	2021-22	2022-23
A	**District** enrollment of Black students with disabilities with disciplinary removals	10.53	21.12	11.97	n/a	n/a	n/a	n/a
B	**District** enrollment of Black students with disabilities	74.02	90.10	85.22	n/a	n/a	n/a	n/a
C* = A ÷ B	**District** risk for Black students with disabilities with disciplinary removals	14.23%	23.44%	14.04%	n/a	n/a	n/a	n/a
D	**District** enrollment of non-Black students with disabilities with disciplinary removals	0	1.89	1	**State** enrollment of non-Black students with disabilities with disciplinary removals	12,559.85	13,528.77	13,781.26
E	**District** enrollment of non-Black students with disabilities	4.39	6.17	8.64	**State** enrollment of non-Black students with disabilities	204,640.05	207,094.01	209,793.61
F* = D ÷ E	**District** risk for non-Black students with disabilities with disciplinary removals	<10 non-Black students with disabilities with disciplinary removals AND <30 non-Black students with disabilities	<10 non-Black students with disabilities with disciplinary removals AND <30 non-Black students with disabilities	<10 non-Black students with disabilities with disciplinary removals AND <30 non-Black students with disabilities	**State** risk for non-Black students with disabilities with disciplinary removals	6.13%	6.53%	6.56%
G = C ÷ F	Risk ratio for Black students with disabilities	Alternate	Alternate	Alternate	Risk Ratio for Black students with disabilities	2.32	3.59	2.14

*The risk result is shortened here for display purposes only. These figures are not rounded before calculating the risk ratio.

Glossary of Terms

Alternate Risk Ratio: A calculation performed by dividing the risk of a particular outcome for students in one racial group *within a district* by the risk of that outcome for students in all other racial or ethnic groups *in the state*.

Comparison Group: Consists of the students in all other racial groups within a district or within the state, when reviewing a racial group within a district for significant disproportionality.

Disproportionate Representation: Disproportionate representation is an equity measure and occurs when students from a racial or ethnic group are identified for special education, including within specific disability categories, at a markedly higher rate than their peers of other races.

Minimum Cell Size: The minimum number of students experiencing a particular outcome, to be used as the numerator when calculating either the risk for a racial or ethnic group or the risk for the comparison group (students in all other racial or ethnic groups).

Minimum N-Size: The minimum number of students enrolled in a district with respect to identification, and the minimum number of students with disabilities enrolled in a district with respect to placement and discipline, to be used as the denominator when calculating either the risk for a particular racial group or the risk for the comparison group (students in all other racial groups).

Reasonable Progress: When a district's risk ratio has exceeded the threshold for three consecutive years but has lowered by an increment, set by the state, for two consecutive years. Ohio set reasonable progress at 0.25.

Risk (Identification): The likelihood of a particular outcome for a specified racial group, calculated by dividing the number of students from a specified racial group experiencing that outcome by the total number of students from that racial group enrolled in the district.

Risk (Placement and Discipline): The likelihood of a particular outcome for a specified racial group, calculated by dividing the number of students with disabilities from a specified racial group experiencing that outcome by the total number of students with disabilities from that racial group enrolled in the district.

Risk Ratio: A calculation performed by dividing the risk of a particular outcome for students in one racial group within a district by the risk for students in all other racial groups within the district.

Risk Ratio Threshold: A threshold, determined by the state, over which disproportionality based on race is significant under 34 C.F.R. §§300.646(a) and (b). Ohio's risk ratio threshold is 2.50.

Significant Disproportionality: Disproportionality is an overrepresentation of students from a racial group in identification for special education, including within specific disability categories; placement in more restrictive educational settings; and disciplinary actions, including in- and out-of-school suspensions and expulsions. Disproportionality becomes significant when the overrepresentation exceeds a threshold defined by each state, with input from stakeholders.

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