



Significant Disproportionality

The December 2016 amendments to the Individuals with Disabilities Education Act (IDEA) require each state to develop a standard methodology to identify local educational agencies (LEAs) with significant disproportionality and ensure that children with disabilities are properly identified for services, receive necessary services in the least restrictive environment, and are not disproportionately removed from their educational placements by disciplinary removals.



What is Significant Disproportionality?

IDEA section 618(d) requires States to collect and examine data to determine if Significant Disproportionality based on race and ethnicity is occurring in the State and the local educational agencies (LEAs) of the State with respect to:

- (A) the identification of children as children with disabilities, including the identification of children as children with disabilities in accordance with a particular impairment;
- (B) the placement in particular educational settings of such children; and
- (C) the incidence, duration, and type of disciplinary actions, including suspensions and expulsions.

What is the methodology used in Pennsylvania to determine whether an LEA is identified with Significant Disproportionality?

Consistent with 34 C.F.R § 300.647, Pennsylvania uses a Risk Ratio analysis to identify whether an LEA has Significant Disproportionality. The standard methodology identifies disparities across seven racial and ethnic groups in 14 categories of analysis. An LEA is identified with Significant Disproportionality when the Risk Ratio in any of the analyzed categories exceeds the established threshold for three consecutive years. Despite having a Risk Ratio in excess of the threshold for three consecutive years, an LEA may not be identified with Significant Disproportionality if they demonstrate reasonable progress in reducing the Risk Ratio. Reasonable progress is defined as a reduction in the Risk Ratio of 0.25 or greater per year for two consecutive years.

Minimum Sizes for Analysis

Cell size 10 – The minimum number of children experiencing a particular outcome, to be used as the numerator when calculating either the risk for a particular racial or ethnic group or the risk for children in all other racial or ethnic groups.

N size 30 – The minimum number of children enrolled in an LEA with respect to identification, and the minimum number of children with disabilities enrolled in an LEA with respect to placement and discipline, to be used as the denominator when calculating either the risk for a particular racial or ethnic group or the risk for children in all other racial or ethnic groups

Pennsylvania's Thresholds

What is a Risk Ratio threshold? It is a threshold, over which disproportionality based on race or ethnicity is significant. Based on stakeholder input, Pennsylvania has established the following threshold values for the Significant Disproportionality calculations:

- Identification: 3.0
- Placement: 3.0
- Discipline: 2.5



WHAT IS ANALYZED?

- Identification of children with disabilities
- Identification of specific disabilities
 - Intellectual disabilities
 - Specific learning disabilities
 - Emotional disturbance
 - Speech or language impairments
 - Other health impairments
 - Autism
- Placement of students with disabilities
 - Inside the regular class less than 40%
 - Separate schools, residential facilities
- Discipline of students with disabilities
 - Out-of-school suspensions and expulsions of 10 days or fewer
 - Out-of-school suspensions and 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, including in-school and out-of-school suspensions, expulsions, removals by school personnel to an interim alternative education setting, and removals by a hearing officer.



What is a Risk Ratio?

A Risk Ratio is a numerical comparison, expressed as a ratio or decimal, that compares the risk of one group to the risk of another group. For special education, the Risk Ratio compares the risk of a specific outcome for a specific racial or ethnic group in an LEA and the risk of that same outcome for all other children in the LEA. For example, if an LEA has a Risk Ratio of 3.0 for Hispanic students with Autism within that LEA, that means Hispanic students are three times as likely as all other race groups to be identified with Autism in that LEA. The comparison is made -- the Risk Ratio is calculated -- by dividing the risk of a particular outcome for children in one racial or ethnic group within an LEA by the risk of that same outcome for children in all other racial or ethnic groups within the LEA (the comparison group). Note that for Risk Ratios involving identification, the comparison group is children in all other racial or ethnic groups enrolled in an LEA. For Risk Ratios involving placement or discipline, the comparison group is children with disabilities in all other racial or ethnic groups enrolled in an LEA. (See 34 C.F.R. §300.647(a)(6).) Example calculations can be found on pages 5-9 of this document.

What is an alternate risk ratio?

To account for small sample size, when the LEA's comparison data does not meet the cell (10) or n (30) sizes, state numbers are used for comparison in place of the LEA numbers. The Alternate Risk Ratio is also a numerical comparison, expressed as a ratio or decimal, between the risk of a specific outcome for a specific racial or ethnic group in an LEA and the risk of that same outcome for a comparison group—all other children in the State, instead of all other children in the LEA. The Alternate Risk Ratio is calculated by dividing the risk of a particular outcome for children in one racial or ethnic group within an LEA by the risk of that same outcome for children in all other racial or ethnic groups in the State.

What happens when an LEA is identified with Significant Disproportionality?

When an LEA is flagged for Significant Disproportionality in one or more of the analyzed categories, the LEA must review its policies, practices and procedures to ensure compliance with the requirements of IDEA. The LEA must publicly report any revision to their policies, practices, and procedures that are a result of this review. The LEA is also required to reserve 15% of its IDEA Part B 611 and 619 allocations to be used for Comprehensive Coordinated Early Intervening Services (CCEIS). These CCEIS funds should be used to address factors contributing to the Significant Disproportionality.



Who can an LEA serve with the reserved CCEIS funds?

An LEA may use the funds reserved for CCEIS to serve children from age 3 through grade 12, particularly (but not exclusively) children in groups that were significantly over-identified. The LEA should use the CCEIS funds to identify and address factors contributing to the significant disproportionality in the identified category. An LEA may not limit CCEIS only to children with disabilities.

SIGNIFICANT DISPROPORTIONALITY CALCULATIONS

Example: Identification - Hispanic, All Disabilities

- Risk Group—Risk Calculation**

$$\frac{\text{\# Hispanic identified with disabilities in LEA}}{\text{\# Hispanic enrolled in LEA (special \& regular ed)}} = \text{likelihood of Hispanic student being identified with a disability}$$

$$\frac{40 \text{ Hispanic identified}}{200 \text{ Hispanic in LEA}} = 20\% \text{ likelihood of Hispanic student being identified with a disability}$$

Cell size (numerator) = 10

N size (denominator) = 30

Analysis not performed if risk group does not meet cell and n size

- Comparison Group—Risk Calculation**

$$\frac{\text{\# all other races identified with disabilities in LEA}}{\text{\# all other races enrolled in LEA (special \& regular ed)}} = \text{likelihood of non-Hispanic student being identified with a disability}$$

$$\frac{200 \text{ identified in other races}}{2000 \text{ non-Hispanic students enrolled in LEA}} = 10\% \text{ likelihood of non-Hispanic student being identified with a disability}$$

Cell size (numerator) = 10

N size (denominator) = 30

Alternate Risk Ratio used if comparison group does not meet cell and n size – Alternate Risk Ratio uses the state data for comparison group instead of LEA data

- Risk Ratio**

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

$$\frac{(40/200)}{(200/2000)} = 2.0 \text{ Risk Ratio} \Rightarrow \text{In this LEA, an Hispanic student is twice as likely as all other race groups to be identified with a disability}$$

SIGNIFICANT DISPROPORTIONALITY CALCULATIONS

Example: Placement - White, Separate Schools

- Risk Group—Risk Calculation**

$$\frac{\text{\# White special education students in separate schools in LEA}}{\text{\# White special education students in LEA}} = \text{likelihood of White special education student being placed in a separate school}$$

$$\frac{12 \text{ White separate schools}}{240 \text{ White special education}} = 5\% \text{ likelihood of White special education student being placed in a separate school}$$

Cell size (numerator) = 10

N size (denominator) = 30

Analysis not performed if risk group does not meet cell and n size

- Comparison Group—Risk Calculation**

$$\frac{\text{\# other races special education in separate schools in LEA}}{\text{\# other races special education in LEA}} = \text{likelihood of non-White special education student being placed in a separate school}$$

$$\frac{50 \text{ non-White special education in separate schools in LEA}}{500 \text{ non-White special education students in LEA}} = 10\% \text{ likelihood of non-White special education student being placed in a separate school}$$

Cell size (numerator) = 10

N size (denominator) = 30

Alternate Risk Ratio used if comparison group does not meet cell and n size – Alternate Risk Ratio uses the state data for comparison group instead of LEA data

- Risk Ratio**

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

$$\frac{(12/240)}{(50/500)} = 0.5 \text{ Risk Ratio} \Rightarrow \text{In this LEA, a White student with disabilities is half as likely as all other race groups to be placed in a separate school}$$

SIGNIFICANT DISPROPORTIONALITY CALCULATIONS

Example: Discipline - Black, Out of School Suspension > 10 Days

- Risk Group—Risk Calculation**

$$\frac{\text{\# Black special education students in LEA with OSS}>10}{\text{\# Black special education students in LEA}} = \text{likelihood of Black special education student being suspended for greater than 10 days}$$

$$\frac{40 \text{ Black special education with OSS}>10}{400 \text{ Black special education}} = 10\% \text{ likelihood of Black special education student being suspended for greater than 10 days}$$

Cell size (numerator) = 10

N size (denominator) = 30

Analysis not performed if risk group does not meet cell and n size

- Comparison Group—Risk Calculation**

$$\frac{\text{\# all other races special education students in LEA with OSS}>10}{\text{\# all other races special education students in LEA}} = \text{likelihood of non-Black special education student being suspended for greater than 10 days}$$

$$\frac{20 \text{ non-Black special education with OSS}>10}{800 \text{ non-Black special education}} = 2.5\% \text{ likelihood of non-Black special education student being suspended for greater than 10 days}$$

Cell size (numerator) = 10

N size (denominator) = 30

Alternate Risk Ratio used if comparison group does not meet cell and n size – Alternate Risk Ratio uses the state data for comparison group instead of LEA data

- Risk Ratio**

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

$$\frac{(40/400)}{(20/800)} = 4.0 \text{ Risk Ratio} \Rightarrow \text{In this LEA, a Black special education student is four times as likely as all other race groups to receive an out of school suspension/greater than 10 days}$$

SIGNIFICANT DISPROPORTIONALITY CALCULATIONS

Example: Identification - Asian, Autism, small sample size

- Risk Group—Risk Calculation**

$$\frac{\text{\# Asian identified with Autism in LEA}}{\text{\# Asian enrolled in LEA (special \& regular ed)}} = \text{likelihood of Asian student being identified with Autism}$$

$$\frac{2 \text{ Asian identified with Autism}}{40 \text{ Asian in LEA}} = 5\% \text{ likelihood of Asian student being identified with Autism}$$

Cell size (numerator) = 10

N size (denominator) = 30

Analysis not performed if risk group does not meet cell and n size

- Comparison Group—Risk Calculation**

$$\frac{\text{\# all other races identified with Autism in LEA}}{\text{\# all other races enrolled in LEA (special \& regular ed)}} = \text{likelihood of non-Asian student being identified with Autism}$$

$$\frac{200 \text{ non-Asian students with Autism}}{2000 \text{ non-Asian students enrolled in LEA}} = 10\% \text{ likelihood of non-Asian student being identified with Autism}$$

Cell size (numerator) = 10

N size (denominator) = 30

Alternate Risk Ratio used if comparison group does not meet cell and n size – Alternate Risk Ratio uses the state data for comparison group instead of LEA data

- Risk Ratio**

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

The sample size for the risk group does not meet the cell size requirement, therefore no Risk Ratio is calculated for this category.

SIGNIFICANT DISPROPORTIONALITY CALCULATIONS

Example: Discipline - Black, Total Removals, Alternate Risk Ratio

- Risk Group—Risk Calculation**

$$\frac{\text{\# Total Removals for Black special education students in LEA}}{\text{\# Black special education students in LEA}} = \text{risk of Black student experiencing a disciplinary removal}$$

$$\frac{120 \text{ Black Total Removals}}{400 \text{ Black special education in LEA}} = 30\% \text{ likelihood of Black student experiencing disciplinary removal}$$

Cell size (numerator) = 10

N size (denominator) = 30

Analysis not performed if risk group does not meet cell and n size

- Comparison Group—Risk Calculation**

$$\frac{\text{\# Total Removals for all other races special ed in LEA}}{\text{\# all other races special education students in LEA}} = \text{risk of non-Black student experiencing disciplinary removal}$$

$$\frac{5 \text{ non-Black Total Removals}}{25 \text{ non-Black special education in LEA}}$$

There were 20,000 Total Removals of non-Black special education students and there were 200,000 non-Black special education students in the state.

Cell size (numerator) = 10

N size (denominator) = 30

Alternate Risk Ratio used if comparison group does not meet cell and n size – Alternate Risk Ratio uses the state data for comparison group instead of LEA data

- Risk Ratio**

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

The sample size for the comparison group does not meet the cell or n size requirement, therefore an Alternate Risk Ratio calculation is used for this category. The Alternate Risk Ratio uses state data or the comparison group.

$$\frac{(120/400)}{(20,000/200,000)} = 3.0 \text{ Risk Ratio} \Rightarrow \text{In this LEA Black special education students are three times as likely as all other races across the state to experience disciplinary removal}$$

Additional Resources

Metro Center – Technical Assistance Center on Disproportionality

Metro Center : https://steinhardt.nyu.edu/metrocenter/center/technical_assistance/program/disproportionality
Technical Assistance Center on Disproportionality’s work includes building the capacity of regions and districts in understanding the root cause and systemically addressing the disproportionate assignment of various subgroups in special education. This entails providing professional development trainings, coaching, training follow-ups, materials, and resources.

[Data Analysis Workbook](#)

[Manual for Identifying Root Causes](#)

The Pennsylvania Equity and Inclusion Toolkit

<https://www.education.pa.gov/Documents/K-12/Safe%20Schools/EquityInclusion/PA%20Equity%20Inclusion%20Toolkit.pdf>

Equity and PBIS

Using Discipline Data within SWPBIS to Identify and Address Disproportionality: A Guide for School Team

<https://www.pbis.org/resource/using-discipline-data-within-swpbis-to-identify-and-address-disproportionality-a-guide-for-school-teams>

Key Elements of Policies to Address Discipline Disproportionality: A Guide for District and School Teams

<https://www.pbis.org/Common/Cms/files/pbisresources/PBIS%20Disproportionality%20Policy%20Guidebook.pdf>

A 5-Point Intervention Approach for Enhancing Equity in School Discipline

<https://www.pbis.org/Common/Cms/files/pbisresources/A%205-Point%20Intervention%20Approach%20for%20Enhancing%20Equity%20in%20School%20Discipline.pdf>

Teaching Tolerance

<https://www.tolerance.org/>

Pa Department of Education

The Pa Department of Education Bureau of Special Education continues to support LEAs with resources for significant disproportionality. Please review these resources and let us know how PDE can help!

[Significant Disproportionality Resources.pdf](#)

[Miseducation: Is There Racial Inequality at Your School? https://projects.propublica.org/miseducation/](#)

National Center for Culturally Responsive Educational Systems (NCCREST)

The National Center for Culturally Responsive Educational Systems (NCCREST) <http://www.nccrest.org/>, a project funded by the U.S. Department of Education’s Office of Special Education Programs, provides technical assistance and professional development to close the achievement gap between students from culturally and linguistically diverse backgrounds and their peers, and reduce inappropriate referrals to special education.

[Equity in Special Education Placement: A School Self-Assessment Guide for Culturally Responsive Practice](#)

[Equity in Special Education Placement: A School Self-Assessment](#)