2019-2020 Significant Disproportionality Methodology Detail

Update - April, 2020:

a. Beginning in the 2019-2020 school year, all data retrieved for determinations will be from the same school year. This was done in an effort to provide districts with determination earlier in the school year so that districts identified may use the information to make budgeting decisions. Prior to the 2019-2020 school year, data were taken from different school year ranges. The base data for items A and B.i (December Child Count and Fall Membership) were from the most recent data available, while base data for item B.ii (Discipline Incidents and December Child Count) was from the prior school year. This meant that the ODE was using newer data for making part of the determinations and older data for another part of the determinations. This forced the ODE to make determinations late in the school year due to review windows and validations of the data.

b. Prior to the 2019-2020 school year, data were only reviewed for students aged 6 – 21. The new regulations, according to the public document at the Federal Register, specifies that states must include children aged 3 through 5 by July 1, 2020. This document now reflects that change. See the Additional Notes section for further explanation.

c. Clarified the Next Steps and Example sections to more closely align it with regulation and practice. Added a calculation example using real statewide numbers and faked district-level numbers for school years 2018-2019, 2017-2018, and 2016-2017.

d. In future years, every effort will be made to make determinations known to districts in January of each year so that districts identified may use the information to make budgeting decisions.

e. See the archive document and compare to this one for any additional changes.

A. Identification of children as children with disabilities generally and with specific impairments:

1. Begins with students reported in the December Child Count, by Resident District, all Active students, aged 3 to 21, and served by the District only, ECSE only, a Regional Program, or Oregon School for the Deaf (OSD) for the prior school year.

2. Get counts by District and by Race/Ethnicity for the following identification categories:
    a. All students identified with a Disability;
    b. Intellectual Disabilities;
    c. Specific Learning Disabilities;
    d. Emotional Disturbance;
    e. Speech or Language Impairments;
    f. Other Health Impairments;
    g. Autism Spectrum Disorder

3. Get Fall Membership student counts aged 3 to 21 by Attending district and by Race/Ethnicity for the same school year as A.1.
   a. Race/Ethnicity values in Fall Membership for students who are also reported in December Child Count do not always match (this occurred in approximately 500 cases in the 2018-2019 school year). In those instances, we use the value present in December Child Count rather than Fall Membership as the December Child Count value is the most recent value.
   b. With the addition of students aged 3 through 5, there are some students reported in December Child Count that are not reported in Fall Membership. In the 2018-2019 school year, there were approximately 8,700 children reported in December Child Count that were not reported in Fall Membership. These students were added to the Fall Membership counts.
4. Check Cell Size and N Size thresholds (10 and 30, respectively) and Level of Comparison:
   a. If the analysis group does not meet the minimum cell size or N-size: No analysis conducted, otherwise, go on to 4.b:
   b. If the comparison group does not meet the minimum cell size or N-size: Level of Comparison is the State (Alternate Risk Ratio); otherwise, Level of Comparison is the District (Risk Ratio)
5. Calculate Risk Ratios (or Alternate Risk Ratios, depending on the level of comparison determined in step 4) for each Disability and Race/Ethnicity using the following formulas:
   a. Risk Ratio:

   $$\frac{N \ of \ Race \ or \ Ethnicity \ in \ Disability \ Category / N \ of \ Race \ or \ Ethnicity \ in \ the \ District}{N \ of \ All \ other \ Race \ or \ Ethnicities \ in \ Disability \ Category / N \ of \ All \ other \ Race \ or \ Ethnicities \ in \ the \ District}$$

   b. Alternate Risk Ratio:

   $$\frac{N \ of \ Race \ or \ Ethnicity \ in \ Disability \ Category \ in \ District / N \ of \ Race \ or \ Ethnicity \ in \ District}{N \ of \ All \ other \ Race \ or \ Ethnicity \ in \ Disability \ Category \ in \ State / N \ of \ all \ other \ Race \ or \ Ethnicities \ in \ the \ State}$$

6. Determine the Median of all Risk Ratios for each Disability Category
7. Determine the Absolute Deviation around the Median by Disability Category (for a detailed explanation of this, please see Leys et al (2013)[1])
   a. Determine the Median Risk Ratio by Disability Category;
   b. Get the absolute values of the Risk Ratios minus the Median Risk Ratio for that Disability Category;
   c. Determine the Median of the values from 7.b. (this is the Absolute Deviation around the Median);
   d. Determine the 75th quartile of the values from 7.c. by disability category (this is used to calculate a substitute for a standard score).
8. Calculate the threshold for Significant Disproportionality by Disability Category:
   a. Calculate the substitute for a standard score by taking 1 divided by the Quartile Risk Ratio from 7.d.
   b. Multiply the Median Absolute Adjusted Risk Ratio from 7.c. by the value from 8.a.
   c. Multiply (8.b) * Significant Deviations (5)
   d. Add (8.c) to the Median Risk Ratio calculated in step 0
9. Compare the specific Risk Ratio for Disability and Race/Ethnicity calculated in step 4.b to the Disability threshold calculated in step 8.d.

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[1] Leys, C., et al., Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median, Journal of Experimental Social Psychology (2013), https://doi.org/10.1016/j.jesp.2013.03.013

B. Placements into particular educational settings, including disciplinary removals:

B.i. Educational Placement Settings

1. Begins with the same base data as A.1 except only students aged 6-21 and only students placed inside a regular class less than 40% of the day and students placed inside separate schools or residential facilities (not including homebound, hospital settings, correctional facilities, or private schools).
2. Get counts by Placement for the following categories:
    a. Students placed inside a regular class less than 40% of the day (Federal Placement code 33);
    b. Students placed inside separate schools and residential facilities, not including homebound or hospital settings, correctional facilities, or private schools (Federal Placement codes 34 and 36).
3. Comparison group is all students from A.1.
4. Same steps from A.4 through A.9 – replace "Disability" with "Placement"

B.ii. Disciplinary Removals

1. Begins with all Discipline Incidents from the prior school year for students aged 3 to 21.
2. Only include students with discipline action types of 1 (Expulsion), 2 (In-School Suspension), 3 (Out-of-School Suspension), or 5 (Removal to Alternate Education Setting), who are receiving special education services at the time of removal.
    a. A removal to an alternate education setting (Action type code 5) is considered a removal from school when the Offense Type is not Battery, Drugs excluding alcohol and tobacco, Manufacture or delivery of a controlled substance, Homicide, Sexual battery, or Weapons possession.
3. Get counts by Race/Ethnicity and by District for the following Discipline Categories:
    a. Out-of-School Suspensions and Expulsions of 10 days or fewer;
    b. Out-of-School Suspensions and Expulsions of more than 10 days;
    c. In-School Suspensions and Expulsions of 10 days or fewer;
    d. In-School suspensions and Expulsions of more than 10 days; and
    e. Disciplinary removals in total
        (a) This includes in-school and out-of-school suspensions, expulsions, removals by school personnel to an interim alternative education setting, and removals by a hearing officer.
    f. These counts are not cumulative and represent specific types of removals. Please see the public comment about this at the [Federal Register](#).
4. Comparison group is all students from step A.1.
5. Get total counts by Race/Ethnicity and by District.
6. Same steps as A.4 through A.9 – replace "Disability" with "Discipline Category"

C. Next Steps

The steps for sections A and B are completed for the prior school year. For example, if determinations are made in the 2019-2020 school year, the first year of data comes from 2018-2019. This provides the ODE with an initial list of districts that **must** be identified for Significant Disproportionality unless removed via the flexibilities outlined in [34 CFR §300.647(d)](#). The ODE then completes the steps for Sections A and B for the two years prior to the initial data year in order to determine if a district may be **removed** from the initial list. In a previous document, the impression was given that the ODE went back

and altered prior year determinations and data. This is not the case and no prior year determinations nor data were ever altered.

The first flexibility (§300.647(d)(1)) checks for whether a district has exceeded the calculated threshold in each year reviewed. If not, then the district is removed from the list. If the district does exceed the calculated threshold in each year, the second flexibility is checked. The second flexibility (§300.647(d)(2)) checks for whether a districts' risk ratio is demonstrating reasonable progress. If the district's risk ratio is reducing from year-to-year, then they are removed from the list. If not, then they are identified as having a Significant Disproportionality.

Currently, the ODE is using a definition of reasonable progress, arrived at with stakeholder input, which includes any reduction of the risk ratio from year-to-year. Upon closer review of the Federal Register's public comment on the topic of reasonable progress, this definition is specifically not allowed as the progress must also be meaningful. However, since the ODE is required to seek stakeholder input on how to define meaningful progress, and the ODE has not yet sought this input, the ODE is maintaining the definition arrived at previously until stakeholder input can be solicited.

D. Examples

District Calculation

The Beaver Falls school district (a fake district) wants to calculate their risk ratio to plan whether they may be identified with a significant disproportionality next school year. They were already identified for the current school year for Black children's Total Removals. From the district's SPR&I Significant Disproportionality report page, a table is included at the bottom of the page that shows the district- and state-level data used for the comparison groups for the three years reviewed. However, for Discipline, if the level of analysis is the district, then the only data needed is the Discipline data and the Total December Child Count (SECC). Let's look at Discipline:

At the end of the 2019-2020 school year Beaver Falls looks at their discipline data and determines the following for Total Removals. They already have their December Child Count (SECC) data:

	Asian	Black	White	Hispanic	Native American	Pacific Islander	Multi-Racial	Total
Total Removals	10	50	70	40	5	0	20	195
SECC	120	170	600	380	30	10	100	1410

Since the district was previously identified for Black/African American students, let's start there. Based on the instructions above, first we look at the total Black students with discipline removals: 50. It meets the minimum cell size of 10. Then the total number of Black students receiving services: 170. It meets the minimum N size of 30. Dividing 50 by 170 equals 0.294. This number is also referred to as the Analysis Risk. Next, we look at the comparison group. To determine the comparison group numerator, take the total number of students with a discipline removal (195) and subtract the Black students (50) to arrive at 145. To determine the comparison group denominator, take the total number of students identified with a disability (1,410) and subtract the total number of black students identified with a

disability (170) to arrive at 1,240. Dividing 145 by 1,240 equals 0.117. This number is also referred to as the Comparison Risk. Dividing 0.294 by 0.117 equals 2.51. This is Beaver Falls' 2019-2020 Risk Ratio for Black students with a discipline removal. Looking at the previously-published threshold of 2.22, Beaver Falls may be identified with a Significant Disproportionality again.

<u>Threshold Calculation</u>
Please note: this will be extremely difficult to fully calculate without all of the underlying data. The ODE cannot provide this data due to our small cell size policy which does not allow the ODE to publish any data that could allow someone to identify a specific student. However, the ODE can make available the ending Risk Ratios for all districts and categories. From this list, the Threshold can be calculated.

Thresholds must be calculated separately for each category. There are 14 categories across Identification and Placement: Autism Spectrum Disorder (AUT), Emotional Disturbance (ED), Intellectual Disability (ID) Other Health Impairment (OHI), Specific Learning Disability (SLD), Speech or Language Impairment (SPL), Identification with any Disability, Placement in a Regular Classroom less than 40% of the day, Placement in a Separate School or Residential Facility, any discipline removal for any length of time, out of school removals for more than 10 days, out of school removals for 10 days or fewer, in school removals for more than 10 days, and in school removals for 10 days or fewer.

<u>Determination</u>
The Beaver Falls school district (a fake district) is showing a risk ratio for Hispanic students with a Speech or Language Impairment (SPL) that is more than 5 deviations away from the statewide median risk ratio for SPL in the 2018-19 school year. This prompts a review of the two prior years' worth of data for Beaver Falls. This data undergoes the same calculations as the current year data in order to reach a determination of whether a pattern exists in the data. If Beaver Falls' Risk Ratio for Hispanic students with SPL exceeds the threshold in each of the prior years reviewed, the algorithm then checks if there has been any improvement in the Risk Ratio over the years reviewed. If the Risk Ratio is not reducing from 2016-2017 to 2017-2018 **and** 2017-2018 to 2018-2019, then Beaver Falls is identified as having a Significant Disproportionality for Hispanic students with a Speech or Language Impairment.

E. Additional Notes

<u>General</u>
The ODE's calculations only include students served by the District, ECSE, Regional Program, or Oregon School for the Deaf. The ODE felt including Long-Term Care and Treatment Centers, Hospitals, Adult and Youth Corrections Education Programs, Juvenile Detention Education Programs, and Pediatric Nursing Facilities would unfairly bias the results of the calculations. Many of the students in these programs were not placed in these settings by an Individualized Education Plan (IEP) team or by the District, but by a different authority entirely. Since the ODE does not collect what authority made the placement decision, the ODE felt that holding districts responsible for decisions their policies and procedures had no say in was not appropriate for identification of Significant Disproportionality.

<u>Children Aged 3 – 5</u>
The inclusion of children aged 3 through 5 is mandated by federal regulation (34 CFR §300.647(b)(3)-(4)). The ODE recognizes that many of these children are educated and provided services through shared responsibility at the District and the ECSE program. However, since ECSE programs are 1) not ultimately responsible for FAPE; and 2) are not currently considered a Local Education Agency *for the purposes of receiving an IDEA Allocation* and therefore not a direct subrecipient of IDEA Part B funds, the ODE cannot identify an ECSE program as significantly disproportionate.

Districts identified with Significant Disproportionality will be expected to work with their ECSE partners to ensure that students aged 3 through 5 are accounted for in their review and revision of policies, practices, and procedures and planned expenditures of their Comprehensive Coordinated Early Intervening Services. The benefit of being identified and required to implement comprehensive coordinated early intervening services (CCEIS) is that funds may be spent on students with disabilities and that funds may be spent on students aged 3 through grade 12. This means that these funds could be spent at an ECSE program as well as at the district.

<u>Starting School Year for Determinations</u>
The ODE wanted to move the determination earlier in the school year to allow districts to budget for CCEIS concerns if they were identified. It was our intention to move it to the beginning of January, but capacity forced us to move it out to March. Moving it this early in the school year meant that no *new* data was available for Identification or Placement as the 2018-2019 determinations used data from 2018-2019, 2017-2018, and 2016-2017. However, new data are available for Discipline as the 2018-2019 determinations started with the 2017-2018 school year for Discipline data. Therefore, the 2019-2020 school year determinations are based only on Discipline data collected from school years 2018-2019, 2017-2018, and 2016-2017. The 2020-2021 school year determinations, made in January, 2021, will be based on all 14 categories and start with school year 2019-2020.