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Technical Report

The Center for Educational Measurement and Evaluation

Disproportionality Technical Assistance Tool (DTAT) User's Guide

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Purpose

"One of the most complex issues in the field of special education today, disproportionality refers to the 'overrepresentation' and 'under-representation' of a particular demographic group in special education programs relative to the presence of this group in the overall student population" (NEA, 2008, unnumbered p. 1); and, "[t]he disproportionate representation of minority children is among the most critical and enduring problems in the field of special education" (Skiba et al., 2008, p. 264). The Disproportionality Technical Assistance Tool (DTAT: Algozzine, Wang, & Wang, 2017) was developed to assist state, district, school, and other education agency personnel in documenting the extent to which disproportionality is occurring as a base for it as a problem. The DTAT methods for calculating disproportionality are those included in resources available from the IDEA Data Center funded by the U.S. Department of Education's Office of Special Education Programs (OSEP) to provide technical assistance to build capacity within states for collecting, reporting, analyzing, and using high-quality IDEA data (cf. Bollmer & Bitterman, 2016; Bollmer, Bethel, Munk, & Bitterman, 2014; U.S. Department of Education, 2017). The outcomes of these methods include:

- Risk (and total removals per child);
- Risk ratio (and total removals per child ratios);
  - Alternate risk ratio (and alternate total removals per child ratios);
  - Weighted risk ratio (and weighted total removals per child ratios);
- Risk difference (and total removals per child difference);
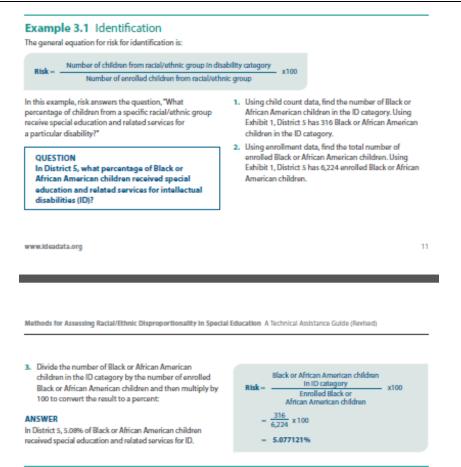- Composition; and
- E-formula values.

Application of each method provides an answer to a specific question about disproportionality based on one of seven racial/ethnic categories: (1) Hispanic/Latino [H/L], (2) American Indian or Alaska Native [AI/AN], (3) Asian [A], (4) Black or African American [B/AA], (5) Native Hawaiian or Other Pacific Islander [NH/OPI], (6) White [W], and (7) Two or more racial or ethnic groups [Two or More]. For example, calculating risk addresses questions related to how likely it is for children from a specific racial/ethnic group (a) to receive special education and related services (e.g., What percentage of Black or African American children receive special education and related services for intellectual disabilities?); (b) to receive special education and related services in a particular educational environment (e.g., What percentage of Hispanic/Latino children with disabilities receive special education and related services inside the regular classroom < 40% of the school day?); and/or, (c) to receive a particular type of suspension/expulsion (e.g., What percentage of Asian children with disabilities experienced out-of-school suspensions/expulsions totaling 10 days or less?) or total disciplinary removals (e.g., What was the average number of disciplinary removals per child for children with disabilities reported as two or more racial or ethnic groups?).

Risk Calculation Example

Disproportionality refers to racial and ethnic differences that exist in the *identification*, *placement* in particular educational environments, and *discipline* (i.e., number, length, and type of suspensions/expulsions) of students with disabilities and ***risk*** (often expressed as a percentage) is a commonly-used indicator for referencing the extent to which disproportionality is occurring. For example, "In State A, 4.2% of Black or African American children receive special education and related services for intellectual disabilities" or, put another way, "In State A, the risk for Black or African American children receiving special education for intellectual disabilities is 4.2%" (Bollmer et al., 2014, p. 11). In this example, "risk" answers questions about the percentage of children from a group who are receiving special education services for a disability category. An example of how to calculate this risk (e.g., the percentage of Black or African American children received special education services for intellectual disabilities) is illustrated in Figure 1.

Figure 1. Example of how to calculate risk of children from a specific group receiving special education services for a particular disability.

Source. Bollmer, J., Bethel, J., Munk, T., & Bitterman, A. (2014, pp.11-12). *Methods for assessing racial/ethnic disproportionality in special education: A technical assistance guide* (Revised). Rockville, MD: Westat/IDEA Data Center. Retrieved from https://ideadata.org/resource-library/54480c2b140ba0665d8b4569/

Disproportionality Problem Solving

Effective team-based problem solving processes define steps for identifying and addressing racial and ethnic differences in the *identification*, *placement*, and *discipline* of students with disabilities (cf. Burns, Jimerson, VanDerHeyden, & Deno, 2016); Deno, 2016; McIntosh, Barnes, Eliason, & Morris, 2014; Newton, Algozzine, Algozzine, Horner, & Todd, 2011; Newton, Horner, Algozzine, Todd, & Algozzine, 2009, 2012). Effective teams use data to identify disproportionality concerns and address them using a problem solving process that supports identifying goals, solutions, and actionable intervention plans; implementing intervention plans; monitoring implementation fidelity; assessing impact; and, evaluating outcomes. The DTAT supports teams in using data to *identify areas of disproportionality* and evidence-based practices defined by the Team-Initiated Problem Solving (TIPS) or other decision-making process help teams *address disproportionality*.

Identifying Areas of Disproportionality

Disproportionality refers to racial and ethnic differences that exist in the identification, placement in particular educational environments, and discipline (i.e., number, length, and type of suspensions/expulsions) of students with disabilities. Documenting the extent to which disproportionality is occurring for different student groups requires disaggregated data and the capability to calculate risk indicators (cf. Bollmer et al., 2014; Boneshefski & Runge, 2014; McIntosh et al., 2014). To document the extent of disproportionality problems for students with disabilities using the DTAT, select an area of concern (i.e., identification, placement, or discipline) and metric (e.g., risk, risk ratio, composition) and complete the following steps (see Figure 1).

1. Select disability group of interest.
2. Update table with disability group child count and total child enrollment data.
3. Use Calculator to document disproportionality.

Figure 2. Screenshot illustrating DTAT solution for Example 3.1 in Bollmer et al., pp. 11-12.

3.1 Identification (Bollmer, Bethel, Munk, and Bitterman, 2014, pp. 11-12)

Focus: Risk of children from a specific racial/ethnic group receiving special education and related services for a specific category of disability

Example: What percentage of Black or African American children received special education and related services for intellectual disabilities?

- The percentage of Black/African American students that received special education and related services for intellectual disabilities was [Risk = 5.08%]

Required Data: Disability group child count and total child enrollment by race and ethnicity

Steps for Data Analysis:

[1.] Select Disability Group: Intellectual Disabilities ▾

[2.] Update the table below with data for disability group (i.e. Intellectual Disabilities, Specific Learning Disabilities) Child Count, and Total Child Enrollment.

[3.] Use the calculator below the table to find the risk for each racial/ethnic group.

Required Data	Racial/Ethnic Group (1)							
	H/L	AI/AN	A	B/AA	NH/OPI	W	Two or More	Total
Disability Group Child Count	121	11	18	316	21	732	3	1222
Total Child Enrollment	6002	311	1213	6224	212	34897	3175	52034

(1) H/L = Hispanic/Latino; AI/AN = American Indian or Alaska Native; A = Asian; B/AA = Black or African American; NH/OPI = Native Hawaiian or Other Pacific Islander; W = White; and, Two or More = Two or More Racial or Ethnic Groups

Calculator

Percentage of Black or African American [B/AA] ▾ students that received special education and related services for **[Intellectual Disabilities]**

Risk: **5.08%**

Addressing Disproportionality

Team-Initiated Problem Solving ([TIPS](): Newton, Todd, Algozzine, Horner, & Algozzine, 2009) is an evidence-based model for problem solving. Using TIPS process can help teams address racial and ethnic differences in identification, placement, and discipline of students with disabilities:

1. Determine extent to which disproportionality is a problem.
   a. Compare obtained risk to local, state, and national data.
   b. Compare obtained risk to previous risk over time.
2. Identify goal indicating disproportionality is **not** a problem.
   a. Define acceptable risk relative to local, state, and national data.
   b. Define acceptable risk relative to percent reduction over time.
3. Identify solutions and actionable interventions to achieve desired goal.
   a. Inventory, analyze, and reform extant district and school policies (beliefs).
   b. Inventory, analyze, and reform extant district and school procedures (beliefs operationalized as processes, plans, and/or proposed ways to act).
   c. Inventory, analyze, and reform extant district and school practices (beliefs operationalized as actions).
4. Implement solutions and actionable intervention plans.
   a. Broaden use of positive and proactive inclusive policies.
   b. Restrict use of discriminatory, restrictive, and exclusionary policies.
   c. Broaden use of positive and proactive inclusive procedures.
   d. Restrict use of discriminatory, restrictive, and exclusionary procedures.
   e. Broaden use of positive and proactive inclusive practices.
   f. Restrict use of discriminatory, restrictive, and exclusionary practices.
5. Monitor implementation fidelity.
   a. Review and document use of positive and proactive inclusive practices.
   b. Review and document use of discriminatory, restrictive, and exclusionary practices
   c. Review and document content and focus of district- and school-based problem-solving team meetings.
   d. Review and document changes in identification, placement, and discipline of students with disabilities.
6. Assess impact.
   a. Establish district and school disproportionality norms.
   b. Compare post-intervention and benchmark risk to district and school norms.
   c. Compare post-intervention and benchmark risk relative to goal.
7. Evaluate outcomes
   a. Compare outcome to goal to determine extent disproportionality is a problem.
   b. Reform, restructure, or retain.

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