Data Analysis Workbook

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Racial/Ethnic Disproportionality in Special Education

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Steinhardt School of Culture, Education, and Human Development

Metropolitan Center for Urban Education
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Mission
The Metropolitan Center for Urban Education is a comprehensive center that focuses on educational research, policy, and practice. We are a partner and resource at the local and national levels in strengthening and improving access, opportunity, and the quality of education in our schools. Our mission is to target issues related to educational equity by providing leadership and support to students, teachers, parents, administrators, and policymakers.

For more information contact TACD: www.steinhardt.nyu.edu/metrocenter
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Acknowledgments

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Finally, we gratefully acknowledge the substantive contributions and guidance of Dr. Pedro Noguera in the development of this tool.
Workbook Introduction

The NYU/NYSED-VESID Technical Assistance Center on Disproportionality

In January 2004, New York University’s Metropolitan Center for Urban Education was awarded a five-year contract by the New York State Education Department-VESID to support six school districts in piloting a process of addressing disproportionality in special education. Specifically, NYU’s contract is to provide technical assistance and professional development in assisting districts in the identification of root causes and the development of action plans to reduce disproportionality. The contract also involves building the capacity of regional technical assistance centers funded by NYSED that are able to continue disproportionality-related work after the NYU contract ends. In this regard, district and regional membership teams were formed at the outset of the contract and continue to be maintained.

During the first two years of the contract, NYU committed its efforts to training pilot districts to interpret and analyze their own disproportionality data, determine the root causes of disproportionality, and develop plans for systemic change to prevent disproportionality from recurring. During the same period, Regional Technical Assistance (TA) providers were trained by NYU with the tools and strategies necessary to support districts in these endeavors. By June 2006, all of the pilot districts arrived at root causes and had begun or completed strategic plans to address them. The data tools used to assist districts to arrive at root causes involved examining general and special education enrollment data through multiple analysis structures. This training manual is an outgrowth of the data analysis work conducted at the onset of our work with each school district.

Purpose of the Manual

The purpose of this manual is to provide district/school personnel an overview of how to analyze special education and general education enrollment data in order to identify rates of disproportionality in special education classification and placement. The manual is divided into three levels of examination: (1) general; (2) by race/ethnicity; and (3) by disability type, placement, and gender by race/ethnicity. Each level outlines the core questions that should be answered by the data, as well as the different layers of interpretation that could be deduced from the data charts. The analysis and interpretation is an initial foray into understanding racial/ethnic disproportionality in special education classification and placement.

Data Requirements District/School Data

Certain data need to be available in order for you to begin this data exercise. The data include general education enrollment by race and gender and special education enrollment by race and gender (classification and placement). It is critical that the general and special education enrollment data reflect the same school years; a lack in consistency prevents appropriate analysis.
Looking at the Data
This workbook takes the user through the various levels of data—from the most general information to specifics about classification and placement—using a variety of formulas. The following schematic outlines the different levels of analysis in the workbook.

The initial levels of data analysis give a broad picture of which students are being classified as having disabilities and to what extent. As the analysis moves deeper, the types of classifications and classroom placements become clearer.

Three main data tools (calculations) are used to explore special education data: **classification rate, composition index, and relative risk ratio.** Because of the relative strengths and weaknesses of each tool, it is best to use as many of the tools as possible at a given level. While each tool can give some information, using all three tools will create a more complete statistical picture.

- **The classification rate** identifies what rate, or percentage of risk, students of a particular racial/ethnic group have of being classified as students with disabilities.

- **The composition index** gives the proportion of students by race/ethnicity in a particular situation. Composition indexes are used to determine if a particular group is over- or under-represented in special education, in a particular disability, or in a particular classroom setting.

  - **Comparisons of composition indexes** are made no more than one level apart (see the diagram on the following page). For example, the composition index of students with disabilities can be compared to the total enrollment composition index to show general disproportionality. Similarly, to show disproportionality in a particular disability, it is helpful to compare the composition index of that disability to the composition index of students with disabilities.

- **The relative risk ratio** gives a comparison of risk for classification of one group in relation to the risk for all other groups. A risk ratio of 1 indicates that there is equal risk. An increase in the risk ratio is indicative of increased risk.

Working with This Workbook
After inputting and running the formulas in each section, it is important to examine the results critically. The first step in doing this is to write down what you notice. What patterns are emerging and what possible problems are becoming apparent? The second step is to attempt to explain your findings (what you have noticed) in the context of the data and current research. Pay close attention to the research notes, critical thoughts, and critical questions to help aid in your analysis.
Workbook Schematic

Initial Levels of Special-Education Data Analysis

Overall District Classification Rate

Level 1: General

Level 2: Race/Ethnicity

CLASSIFICATION
- Learning Disability
- Emotional Disability
- Speech Impairment

SETTING
- Least Restrictive Environments <20%
- Most Restrictive Environments >60%

GENDER
- Male
- Female

Level 3:
Disability, Classroom Placement, and Gender by Race/Ethnicity

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Level 1

Overall District Classification Rate
Level 1, Question 1:

What is the overall district classification rate?
Overall Classification

Classification Rate = \frac{\text{Number of SWD}}{\text{Total number of students}} \times 100 = \text{\%}

(\text{Classification Rate} = \text{Number of SWD divided by Total number of students multiplied by 100})

Of all students, INSERT PERCENTAGE classified with special education services.

What do you notice?

Critical Analysis:

Critical Thoughts: Each state maintains a different threshold as to what is considered a high rate of classification. In New York State, a classification rate of 15% or higher may lead to a disproportionality issue. If your classification rates are above 15%, you must consider what may be playing a role in this high rate of classification. For example, you could examine whether the trend of special education classification is occurring within district classification or outside of district disproportionality. Another possibility for high rates could be parents requesting special education services because of a perception of special education as a strong intervention strategy in the district. Other possible factors to consider: special education as the primary service for students struggling academically and as it maintains the instructional capacity to address learning difficulties.

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Level 2

Classification Rates, Composition Indexes, and Risk Ratios by Race/Ethnicity
Level 2, Question 2:

What is the overall classification rate of SWD by race/ethnicity?
**Classification of SWD by Race/Ethnicity**

Classification Rate = \[ \frac{\text{# classified}}{\text{Total # classified}} \times 100 \] %

(Classification Rate = Number of SWD in a racial/ethnic group divided by Total number of students in the same racial/ethnic group multiplied by 100)

**Observed Classification Rate by Race/Ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed SWD</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>B. Total Enrollment</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td>Total # enrolled</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

**Analysis and Interpretation:**

Of Black students, **INSERT PERCENTAGE FROM LINE C %** are classified with special education services.

Of Hispanic students, **INSERT PERCENTAGE FROM LINE C %** are classified with special education services.

Of White students, **INSERT PERCENTAGE FROM LINE C %** are classified with special education services.

Of Asian students, **INSERT PERCENTAGE FROM LINE C %** are classified with special education services.
What do you notice?

Critical Analysis:

Critical Question: Are certain racial/ethnic groups at greater risk of being classified?
Level 2, Question 3:

What is the racial/ethnic composition of SWD compared to the racial/ethnic composition of the entire district?
Composition of SWD Compared to the Racial/Ethnic Composition of the Entire District

In analyzing Composition Indexes, look at the proportional representation of a racial/ethnic group in the district as compared to the proportional representation of the same group in special education. **This comparison is the heart of disproportionality.**

**Composition Index = _______ \div _______ \times 100 = _______ %**

(Composition Index = Number of SWD in a racial/ethnic group divided by Total number of SWD multiplied by 100)

### Observed Composition Index of District

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># enrolled</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td><strong>F. District Composition</strong></td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td>E</td>
</tr>
</tbody>
</table>

### Observed Composition Index of SWD in District

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SWD Enrollment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># classified</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td><strong>G. SWD Composition</strong></td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td>E</td>
</tr>
</tbody>
</table>

**Analysis and Interpretation:**

Black students make up **INSERT COMPOSITION FROM LINE F _______ %** of the district population and make up **INSERT COMPOSITION FROM LINE G _______ %** of students in the district classified as having a disability.

Hispanic students make up **INSERT COMPOSITION FROM LINE F _______ %** of the district population and make up **INSERT COMPOSITION FROM LINE G _______ %** of students in the district classified as having a disability.

White students make up **INSERT COMPOSITION FROM LINE F _______ %** of the district population and make up **INSERT COMPOSITION FROM LINE G _______ %** of students in the district classified as having a disability.

Asian students make up **INSERT COMPOSITION FROM LINE F _______ %** of the district population and make up **INSERT COMPOSITION FROM LINE G _______ %** of students in the district classified as having a disability.

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What do you notice?

Critical Analysis:

Critical Questions: Should the enrollment composition parallel the SWD enrollment composition for each racial/ethnic group? If a difference exists, how much difference should be considered a disproportionality issue?
Level 2, Question 4:

How much more likely is it that a student from a given racial/ethnic group will be identified with a disability?
Relative Risk Ratio (Risk Ratio)

We utilize measures of risk to answer questions about the likelihood of students in a given racial/ethnic group being classified and placed in special education.

The relative risk is similar to the composition index in that it is the number of students in a particular racial/ethnic group classified as SWD divided by the number of total students in that same racial/ethnic group. A **Relative Risk Ratio** (Risk Ratio) is a comparison of the relative risks of a particular racial/ethnic group compared to the relative risks of the remaining racial/ethnic groups.

**Relative Risk Ratio (Risk Ratio)** is the ratio of two ratios. It allows one to specifically answer the question of how much more likely it is that a student from a particular racial or ethnic group, in a given setting, will receive a certain classification and/or placement than will students from all other racial and ethnic groups in that setting. Thus, if a particular racial or ethnic group’s **Risk Ratio** is 2.0, it means that students from that racial or ethnic group are twice as likely to receive a certain classification than other students. If a particular racial or ethnic group’s **Risk Ratio** is 1.0, it means that students from that racial or ethnic group are equally likely to receive a certain classification as other students, and if a particular racial or ethnic group’s **Risk Ratio** is .50, it means that students from that racial or ethnic group are less than half as likely to receive a certain classification as other students.

**Relative Risk Ratio Computations for Classification by Race/Ethnicity**

- **Black Risk Ratio**
  
  \[
  \frac{(\text{Black SWD} \div \text{Black enrollment})}{\left(\frac{(\text{Total SWD} - \text{Black SWD})}{(\text{Total enrollment} - \text{Black enrollment})}\right)} = \text{______ risk}
  \]

- **Hispanic Risk Ratio**
  
  \[
  \frac{(\text{Hispanic SWD} \div \text{Hispanic enrollment})}{\left(\frac{(\text{Total SWD} - \text{Hispanic SWD})}{(\text{Total enrollment} - \text{Hispanic enrollment})}\right)} = \text{______ risk}
  \]

- **White Risk Ratio**
  
  \[
  \frac{(\text{White SWD} \div \text{White enrollment})}{\left(\frac{(\text{Total SWD} - \text{White SWD})}{(\text{Total enrollment} - \text{White enrollment})}\right)} = \text{______ risk}
  \]

- **Asian Risk Ratio**
  
  \[
  \frac{(\text{Asian SWD} \div \text{Asian enrollment})}{\left(\frac{(\text{Total SWD} - \text{Asian SWD})}{(\text{Total enrollment} - \text{Asian enrollment})}\right)} = \text{______ risk}
  \]
**Research Note:** The 2003-2004 national risk ratio for Blacks to be classified with mental retardation is 2.4 and with emotional disturbance, 1.92. The National Center for Culturally Responsive School Systems (www.nccrest.org) maintains a data map series that allows examination of risk in various states.

**Critical Questions:** What should constitute a high risk ratio? Are there groups that seem to have a higher risk of being classified? If one group has a higher classification rate, disproportionate composition, or higher risk than others, are there specific factors that could explain such a pattern (e.g., parents referring children, high mobility of groups, group homes, or residential programs in the community)?
Level 3

Classification Rates, Composition Indexes, and Risk Ratios by Race/Ethnicity:
1) Specific Disabilities,
2) Classroom Placements, and
3) Gender
Level 3, Question 5:

What are the classification rates of students with LD, ED, and SI by race/ethnicity?
### Classification Rates of Students with LD, ED, and SI by Race/Ethnicity

Classification Rate = \( \frac{\text{Number of SWD classified as LD, ED, or SI in a racial/ethnic group}}{\text{the Total number of SWD in the same racial/ethnic group}} \times 100 \)

#### Observed Classification Rate of LD by Race/Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed LD</td>
<td># LD</td>
<td># LD</td>
<td># LD</td>
<td># LD</td>
<td>Total # LD</td>
</tr>
<tr>
<td>B. SWD Enrollment</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

**Analysis and Interpretation:**

- Of Black students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having a learning disability.
- Of Hispanic students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having a learning disability.
- Of White students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having a learning disability.
- Of Asian students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having a learning disability.

#### Observed Classification Rate of ED by Race/Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed ED</td>
<td># ED</td>
<td># ED</td>
<td># ED</td>
<td># ED</td>
<td>Total # ED</td>
</tr>
<tr>
<td>B. SWD Enrollment</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

**Analysis and Interpretation:**

- Of Black students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having an emotional disturbance.
- Of Hispanic students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having an emotional disturbance.
- Of White students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having an emotional disturbance.
- Of Asian students with disabilities, **INSERT PERCENTAGE FROM LINE C _______%** are classified as having an emotional disturbance.
### Observed Classification Rate of SI by Race/Ethnicity

<table>
<thead>
<tr>
<th>A. Observed SI</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># SI</td>
<td># SI</td>
<td># SI</td>
<td># SI</td>
<td># SI</td>
<td># SI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. SWD Enrollment</th>
<th># classified</th>
<th># classified</th>
<th># classified</th>
<th># classified</th>
<th>Total # classified</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>C. % Observed</th>
<th>A/B x 100</th>
<th>A/B x 100</th>
<th>A/B x 100</th>
<th>A/B x 100</th>
<th>A/B x 100</th>
</tr>
</thead>
</table>

**Analysis and Interpretation:**

Of Black students with disabilities, ***INSERT PERCENTAGE FROM LINE C ________%*** are classified as having a speech impairment.

Of Hispanic students with disabilities, ***INSERT PERCENTAGE FROM LINE C ________%*** are classified as having a speech impairment.

Of White students with disabilities, ***INSERT PERCENTAGE FROM LINE C ________%*** are classified as having a speech impairment.

Of Asian students with disabilities, ***INSERT PERCENTAGE FROM LINE C ________%*** are classified as having a speech impairment.

**What do you notice?**

**Critical Analysis:**
Level 3, Question 6:

What are the composition indexes of students with LD, ED, and SI by race/ethnicity?
Composition Index = \( \frac{\text{\# classified}}{\text{Total \# classified}} \times 100 \) %

(Composition Index = Number of SWD classified as LD, ED, or SI in a racial/ethnic group divided by Total number of LD, ED, or SI multiplied by 100)

### Observed Composition Index of SWD

<table>
<thead>
<tr>
<th>SWD Enrollment</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A # classified</td>
<td>B # classified</td>
<td>C # classified</td>
<td>D # classified</td>
<td>E Total # classified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F. SWD Composition</th>
<th>A/E x 100</th>
<th>B/E x 100</th>
<th>C/E x 100</th>
<th>D/E x 100</th>
</tr>
</thead>
</table>

### Observed Composition Index LD

<table>
<thead>
<tr>
<th>LD Enrollment</th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A # LD</td>
<td>B # LD</td>
<td>C # LD</td>
<td>D # LD</td>
<td>E Total # LD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G. LD Composition</th>
<th>A/E x 100</th>
<th>B/E x 100</th>
<th>C/E x 100</th>
<th>D/E x 100</th>
</tr>
</thead>
</table>

**Analysis and Interpretation:**

Black students make up **INSERT COMPOSITION FROM LINE F** _____% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G** _____% of students in the district classified as having a learning disability.

Hispanic students make up **INSERT COMPOSITION FROM LINE F** _____% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G** _____% of students in the district classified as having a learning disability.

White students make up **INSERT COMPOSITION FROM LINE F** _____% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G** _____% of students in the district classified as having a learning disability.

Asian students make up **INSERT COMPOSITION FROM LINE F** _____% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G** _____% of students in the district classified as having a learning disability.
### Observed Composition Index of SWD

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWD Enrollment</td>
<td>A # classified</td>
<td>B # classified</td>
<td>C # classified</td>
<td>D # classified</td>
<td>E Total # classified</td>
</tr>
<tr>
<td>F. SWD Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
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</tbody>
</table>

### Observed Composition Index ED

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Enrollment</td>
<td>A # ED</td>
<td>B # ED</td>
<td>C # ED</td>
<td>D # ED</td>
<td>E Total # ED</td>
</tr>
<tr>
<td>H. ED Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

### Analysis and Interpretation:

Black students make up **INSERT COMPOSITION FROM LINE F** ________% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE H** ________% of students in the district classified as having an emotional disturbance.

Hispanic students make up **INSERT COMPOSITION FROM LINE F** ________% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE H** ________% of students in the district classified as having an emotional disturbance.

White students make up **INSERT COMPOSITION FROM LINE F** ________% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE H** ________% of students in the district classified as having an emotional disturbance.

Asian students make up **INSERT COMPOSITION FROM LINE F** ________% of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE H** ________% of students in the district classified as having an emotional disturbance.
Racial/Ethnic Disproportionality Data Analysis Workbook

Observed Composition Index of SWD

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWD Enrollment</td>
<td>A # classified</td>
<td>B # classified</td>
<td>C # classified</td>
<td>D # classified</td>
<td>E Total # classified</td>
</tr>
<tr>
<td>F. SWD Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

Observed Composition Index SI

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI Enrollment</td>
<td>A # SI</td>
<td>B # SI</td>
<td>C # SI</td>
<td>D # SI</td>
<td>E Total # SI</td>
</tr>
<tr>
<td>I. SI Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

Analysis and Interpretation:

Black students make up **INSERT COMPOSITION FROM LINE F _______ %** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE I _______ %** of students in the district classified as having a speech impairment.

Hispanic students make up **INSERT COMPOSITION FROM LINE F _______ %** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE I _______ %** of students in the district classified as having a speech impairment.

White students make up **INSERT COMPOSITION FROM LINE F _______ %** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE I _______ %** of students in the district classified as having a speech impairment.

Asian students make up **INSERT COMPOSITION FROM LINE F _______ %** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE I _______ %** of students in the district classified as having a speech impairment.
What do you notice?

Critical Analysis:
Level 3, Question 7:
How much more likely is it that a student from a given racial/ethnic group will be identified with a particular disability (LD, ED, or SI)?
Relative Risk Ratio Computations for LD, ED, or SI Classification by Race/Ethnicity

IMPORTANT:
Calculate the Risk Ratio of each classification (LD, ED, or SI) separately.

**Black Risk Ratio**
\[
\frac{(\text{Black LD, ED, or SI ÷ Black enrollment})}{\left\{\frac{\text{(Total LD, ED, or SI – Black LD, ED, or SI)}}{\text{(Total enrollment – Black enrollment)}}\right\}} = \text{______ risk}
\]

**Hispanic Risk Ratio**
\[
\frac{(\text{Hispanic LD, ED, or SI ÷ Hispanic enrollment})}{\left\{\frac{\text{(Total LD, ED, or SI – Hispanic LD, ED, or SI)}}{\text{(Total enrollment – Hispanic enrollment)}}\right\}} = \text{______ risk}
\]

**White Risk Ratio**
\[
\frac{(\text{White LD, ED, or SI ÷ White enrollment})}{\left\{\frac{\text{(Total LD, ED, or SI – White LD, ED, or SI)}}{\text{(Total enrollment – White enrollment)}}\right\}} = \text{______ risk}
\]

**Asian Risk Ratio**
\[
\frac{(\text{Asian LD, ED, or SI ÷ Asian enrollment})}{\left\{\frac{\text{(Total LD, ED, or SI – Asian LD, ED, or SI)}}{\text{(Total enrollment – Asian enrollment)}}\right\}} = \text{______ risk}
\]
What do you notice?

Critical Analysis:

Critical Questions: Do certain racial/ethnic groups appear to dominate particular classifications (LD, ED, or SI)? How does this relate to underrepresentation in honors/AP/talented and gifted programs, discipline, and pre-referral intervention programs?
Level 3, Question 8:

What are the classification rates of students in different classroom settings by race/ethnicity?
Classification Rates of Students in Different Classroom Settings by Race/Ethnicity

Classification Rate = _______ ÷ _______ x 100 = _______ %

(Classification Rate = Number of <20% or >60% classroom settings in a racial/ethnic group divided by the Total number of SWD in the same racial/ethnic group multiplied by 100)

Observed LRE Classification Rate of (<20%)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed</td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td>Total # &lt;20%</td>
</tr>
<tr>
<td>B. SWD Enrollment</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

Analysis and Interpretation:
Of Black students with disabilities, INSERT PERCENTAGE FROM LINE C _______% are placed in the least restrictive environments (<20%).

Of Hispanic students with disabilities, INSERT PERCENTAGE FROM LINE C _______% are placed in the least restrictive environments (<20%).

Of White students with disabilities, INSERT PERCENTAGE FROM LINE C _______% are placed in the least restrictive environments (<20%).

Of Asian students with disabilities, INSERT PERCENTAGE FROM LINE C _______% are placed in the least restrictive environments (<20%).

Of all students with disabilities, INSERT PERCENTAGE FROM LINE C _______% are placed in the least restrictive environments (<20%).
Racial/Ethnic Disproportionality Data Analysis Workbook

Observed MRE Classification Rate of (>60%)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed &gt;60%</td>
<td># &gt;60%</td>
<td># &gt;60%</td>
<td># &gt;60%</td>
<td># &gt;60%</td>
<td>Total # &gt;60%</td>
</tr>
<tr>
<td>B. SWD Enrollment</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

Analysis and Interpretation:
Of Black students with disabilities, **INSERT PERCENTAGE FROM LINE C _______ %** are placed in the most restrictive environments (>60%).

Of Hispanic students with disabilities, **INSERT PERCENTAGE FROM LINE C _______ %** are placed in the most restrictive environments (>60%).

Of White students with disabilities, **INSERT PERCENTAGE FROM LINE C _______ %** are placed in the most restrictive environments (>60%).

Of Asian students with disabilities, **INSERT PERCENTAGE FROM LINE C _______ %** are placed in the most restrictive environments (>60%).

Of all students with disabilities, **INSERT PERCENTAGE FROM LINE C _______ %** are placed in the most restrictive environments (>60%).

What do you notice?

Critical Analysis:
Level 3, Question 9:

What are the composition indexes of students in different classroom settings by race/ethnicity?
## Composition Indexes of Students in Different Classroom Settings by Race/Ethnicity

\[
\text{Composition Index} = \frac{\text{Number of } <20\% \text{ or } >60\% \text{ classroom placements in a racial/ethnic group}}{\text{Total number of } <20\% \text{ or } >60\% \text{ classroom placements}} \times 100
\]

### Observed Composition Index of SWD

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWD Enrollment</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td># classified</td>
<td>Total # classified</td>
</tr>
<tr>
<td>F. SWD Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

### Observed LRE Composition Index (<20%)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20% Enrollment</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td># &lt;20%</td>
<td>Total # &lt;20%</td>
</tr>
<tr>
<td>G. LRE Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

### Analysis and Interpretation:

Black students make up **INSERT COMPOSITION FROM LINE F _____%** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G _____%** of students in the district in the least restrictive learning environments (<20%).

Hispanic students make up **INSERT COMPOSITION FROM LINE F _____%** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G _____%** of students in the district in the least restrictive learning environments (<20%).

White students make up **INSERT COMPOSITION FROM LINE F _____%** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G _____%** of students in the district in the least restrictive learning environments (<20%).

Asian students make up **INSERT COMPOSITION FROM LINE F _____%** of students in the district classified as having a disability and make up **INSERT COMPOSITION FROM LINE G _____%** of students in the district in the least restrictive learning environments (<20%).

For more information contact TACD: [www.steinhardt.nyu.edu/metrocenter](http://www.steinhardt.nyu.edu/metrocenter)
### Observed Composition Index of SWD

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWD Enrollment</td>
<td>A # classified</td>
<td>B # classified</td>
<td>C # classified</td>
<td>D # classified</td>
<td>E Total # classified</td>
</tr>
<tr>
<td>F. SWD Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

### Observed MRE Composition Index (>60%)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;60% Enrollment</td>
<td>A # &gt;60%</td>
<td>B # &gt;60%</td>
<td>C # &gt;60%</td>
<td>D # &gt;60%</td>
<td>E Total # &gt;60%</td>
</tr>
<tr>
<td>H. MRE Composition</td>
<td>A/E x 100</td>
<td>B/E x 100</td>
<td>C/E x 100</td>
<td>D/E x 100</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis and Interpretation:**

Black students make up \(\text{INSERT COMPOSITION FROM LINE F} \) ______% of students in the district classified as having a disability and make up \(\text{INSERT COMPOSITION FROM LINE H} \) ______% of students in the district in the most restrictive learning environments (>60%).

Hispanic students make up \(\text{INSERT COMPOSITION FROM LINE F} \) ______% of students in the district classified as having a disability and make up \(\text{INSERT COMPOSITION FROM LINE H} \) ______% of students in the district in the most restrictive learning environments (>60%).

White students make up \(\text{INSERT COMPOSITION FROM LINE F} \) ______% of students in the district classified as having a disability and make up \(\text{INSERT COMPOSITION FROM LINE H} \) ______% of students in the district in the most restrictive learning environments (>60%).

Asian students make up \(\text{INSERT COMPOSITION FROM LINE F} \) ______% of students in the district classified as having a disability and make up \(\text{INSERT COMPOSITION FROM LINE H} \) ______% of students in the district in the most restrictive learning environments (>60%).
What do you notice?

Critical Analysis:
Level 3, Question 10:

How much more likely is a student from a given racial/ethnic group to be placed in a particular classroom setting (<20% or >60% classroom placement)?
Relative Risk Ratio Computations for <20% or >60% Classroom Placements by Race/Ethnicity

IMPORTANT:
Calculate the Risk Ratio of each classroom placement (<20% or >60%) separately.

**Black Risk Ratio**
\[
\frac{(\text{Black } <20\% \text{ or } >60\% \div \text{ Black enrollment})}{([\text{Total } <20\% \text{ or } >60\% - \text{ Black } <20\% \text{ or } >60\%])} \div ([\text{Total enrollment } - \text{ Black enrollment}]) = \text{ risk}
\]

**Hispanic Risk Ratio**
\[
\frac{(\text{Hispanic } <20\% \text{ or } >60\% \div \text{ Hispanic enrollment})}{([\text{Total } <20\% \text{ or } >60\% - \text{ Hispanic } <20\% \text{ or } >60\%])} \div ([\text{Total enrollment } - \text{ Hispanic enrollment}]) = \text{ risk}
\]

**White Risk Ratio**
\[
\frac{(\text{White } <20\% \text{ or } >60\% \div \text{ White enrollment})}{([\text{Total } <20\% \text{ or } >60\% - \text{ White } <20\% \text{ or } >60\%])} \div ([\text{Total enrollment } - \text{ White enrollment}]) = \text{ risk}
\]

**Asian Risk Ratio**
\[
\frac{(\text{Asian } <20\% \text{ or } >60\% \div \text{ Asian enrollment})}{([\text{Total } <20\% \text{ or } >60\% - \text{ Asian } <20\% \text{ or } >60\%])} \div ([\text{Total enrollment } - \text{ Asian enrollment}]) = \text{ risk}
\]
What do you notice?

Critical Analysis:

Research Note: School districts vary in the type of placement patterns that are disproportionate. A common question is whether a predominantly Black and/or Latino district can be disproportionate. It is possible to be disproportionate in classification for other nuanced reasons, but also in the disproportionate placement of students in the most restrictive setting.

Critical Questions: What group or groups have the highest and lowest rates of being in the least and most restrictive settings? What are the various types of settings offered in your district?
Level 3, Question 11:

What is the classification of SWD by race/ethnicity and gender?
Classification of SWD by Race/Ethnicity and Gender

Classification Rate = \( \frac{\text{# males classified}}{\text{Total # males enrolled}} \times 100 \) %

(Classification Rate of racial/ethnic group males = Number of SWD of racial/ethnic group males divided by Total enrollment of racial/ethnic group males multiplied by 100)

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed male SWD</td>
<td># males classified</td>
<td># males classified</td>
<td># males classified</td>
<td># males classified</td>
<td># males classified</td>
</tr>
<tr>
<td>B. Total male enrollment</td>
<td>Total # males enrolled</td>
<td>Total # males enrolled</td>
<td>Total # males enrolled</td>
<td>Total # males enrolled</td>
<td>Total # males enrolled</td>
</tr>
<tr>
<td>C. % male SWD</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

Analysis and Interpretation:
Of Black male students, INSERT PERCENTAGE FROM LINE C _______% are classified with special education services.

Of Hispanic male students, INSERT PERCENTAGE FROM LINE C _______% are classified with special education services.

Of White male students, INSERT PERCENTAGE FROM LINE C _______% are classified with special education services.

Of Asian male students, INSERT PERCENTAGE FROM LINE C _______% are classified with special education services.

Of all male students, INSERT PERCENTAGE FROM LINE C _______% are classified with special education services.
Classification Rate = \( \frac{\text{INSERT PERCENTAGE FROM LINE C}}{\text{INSERT PERCENTAGE FROM LINE C}} \times 100 = \text{______} \% \)

(Classification Rate of racial/ethnic group females = Number of SWD of racial/ethnic group females divided by Total enrollment of racial/ethnic group females multiplied by 100)

### Observed Classification of Females by Race

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Observed female SWD</td>
<td># females classified</td>
<td># females classified</td>
<td># females classified</td>
<td># females classified</td>
<td># females classified</td>
</tr>
<tr>
<td>B. Total female enrollment</td>
<td>Total # females enrolled</td>
<td>Total # females enrolled</td>
<td>Total # females enrolled</td>
<td>Total # females enrolled</td>
<td>Total # females enrolled</td>
</tr>
<tr>
<td>C. % female SWD</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

### Analysis and Interpretation:

- Of Black female students, **INSERT PERCENTAGE FROM LINE C** ________% are classified with special education services.
- Of Hispanic female students, **INSERT PERCENTAGE FROM LINE C** ________% are classified with special education services.
- Of White female students, **INSERT PERCENTAGE FROM LINE C** ________% are classified with special education services.
- Of Asian female students, **INSERT PERCENTAGE FROM LINE C** ________% are classified with special education services.
- Of all female students, **INSERT PERCENTAGE FROM LINE C** ________% are classified with special education services.
What do you notice?

Critical Analysis:

Research Note: The descriptive research on disproportionality documents the overrepresentation of males in special education. For example, Black males represent 9% of school enrollment population; however, they represent 21% of the special education population classified with emotional disturbance (NCES, 2000).

Critical Questions: Is there a certain gender that has a greater chance of being classified as SWD? What might account for this?
Overall Analysis

Are there any racial/ethnic groups that have a high risk of being classified as SWD in this district?

What is their story (e.g., referrals, classification, setting, etc.)?

Why is it necessary to look at all of these components to help draw sound conclusions?
Appendix

Looking at Referral and Recommendation Data
Classification numbers generally deal with all students with disabilities who are in the school district. While this gives a thorough picture of who is receiving special education services, to get a more complete picture of special education it is also important to examine the referral and recommendation stages. This gives a sense of which students are entering special education. While these numbers tend to be smaller, the same calculations used in exploring classification data can also be used to explore referral and recommendation data.

**Overall Referral to Special Education Rate**

\[
\text{Referral Rate} = \frac{\text{Number of referred students}}{\text{Total number of students}} \times 100 = \text{_______ %}
\]

(Referral Rate = Number of referred students divided by Total number of students multiplied by 100)

**Overall Recommendation for Special Education Rates**

\[
\text{Recommendation Rate} = \frac{\text{Number of students recommended for special education}}{\text{Total number of students}} \times 100 = \text{_______ %}
\]

(Recommendation Rate = Number of students recommended for special education divided by Total number of students multiplied by 100)

**Observed Referral Rate by Race/Ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Referred</td>
<td># referred</td>
<td># referred</td>
<td># referred</td>
<td># referred</td>
<td>Total # referred</td>
</tr>
<tr>
<td>B. Total Enrollment</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td>Total # enrolled</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

**Recommendation for Special Education Rates by Race/Ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Recommended</td>
<td># recommended</td>
<td># recommended</td>
<td># recommended</td>
<td># recommended</td>
<td>Total # recommended</td>
</tr>
<tr>
<td>B. Total Enrollment</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td># enrolled</td>
<td>Total # enrolled</td>
</tr>
<tr>
<td>C. % Observed</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
<td>A/B x 100</td>
</tr>
</tbody>
</table>

For more information contact TACD: www.steinhardt.nyu.edu/metrocenter
**Composition Indexes of Referrals and Recommendations by Race/Ethnicity**

Composition Index = \( \frac{\text{Composition Index}}{\text{Total number of SWD multiplied by 100}} \) = \( \frac{\text{Number of SWD in a racial/ethnic group}}{\text{Total number of SWD multiplied by 100}} \) %

**(Composition Index = Number of SWD in a racial/ethnic group divided by Total number of SWD multiplied by 100)**

**Observed Composition Index of District**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enrollment</td>
<td>( A ) # enrolled</td>
<td>( B ) # enrolled</td>
<td>( C ) # enrolled</td>
<td>( D ) # enrolled</td>
<td>( E ) Total # enrolled</td>
</tr>
<tr>
<td>F. District Composition</td>
<td>( A/E \times 100 )</td>
<td>( B/E \times 100 )</td>
<td>( C/E \times 100 )</td>
<td>( D/E \times 100 )</td>
<td></td>
</tr>
</tbody>
</table>

**Observed Composition Index of Referred Students in District**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referred</td>
<td>( A ) # referred</td>
<td>( B ) # referred</td>
<td>( C ) # referred</td>
<td>( D ) # referred</td>
<td>( E ) Total # referred</td>
</tr>
<tr>
<td>G. Referral Composition</td>
<td>( A/E \times 100 )</td>
<td>( B/E \times 100 )</td>
<td>( C/E \times 100 )</td>
<td>( D/E \times 100 )</td>
<td></td>
</tr>
</tbody>
</table>

**Observed Composition Index of Students Recommended for Special Education in District**

<table>
<thead>
<tr>
<th></th>
<th>Black</th>
<th>Hispanic</th>
<th>White</th>
<th>Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended</td>
<td>( A ) # recommended</td>
<td>( B ) # recommended</td>
<td>( C ) # recommended</td>
<td>( D ) # recommended</td>
<td>( E ) Total # recommended</td>
</tr>
<tr>
<td>H. Recommended Composition</td>
<td>( A/E \times 100 )</td>
<td>( B/E \times 100 )</td>
<td>( C/E \times 100 )</td>
<td>( D/E \times 100 )</td>
<td></td>
</tr>
</tbody>
</table>