

# Monitoring Discipline Disproportionality

## Worksheet

1. Use the demographic information in the table below to practice risk

Demographic Group	Number Enrolled	Number with at least one ODR
Qualify for F/R Lunch	40	20
Do not qualify for F/R Lunch	60	20

a) **Risk Index:** In the boxes below, calculate the Risk Index for both groups (*All Formulas are in Appendix A*)

Risk Index for students who qualify for F/R Lunch of receiving at least one ODR

Risk Index for students who qualify for F/R Lunch of receiving at least one ODR

b) **Risk Ratio:** Calculate the Risk Ratio for students who qualify for F/R Lunch of receiving at least one ODR; remember, the reference group is everyone else (i.e., students who *did not* qualify for F/R Lunch).

Risk Ratio for students who qualify for F/R Lunch of receiving at least one ODR as compared to everyone else.

- c) **Raw Differential Representation (RDR):** Using the demographics table above and the risk indices and risk ratio you just calculated, set up the formula for calculating the Raw Differential Representation. If you have time and are feeling ambitious, calculate it out. You can use the formula below by replacing the labels with the actual numbers from the example and your subsequent calculations.

$$\# \text{ of Target Students receiving outcome} - \frac{\# \text{ of target students receiving outcome}}{\text{Risk Ratio comparing target to reference}}$$

2. Use the [Disproportionality Calculator](#) and the demographic tables *below* to calculate and compare ODR disproportionality for students with IEPs for John Dewey Middle School and Horace Mann Middle School (hint: you just need to enter *enrollment* and the *number of students with at least one ODR*).

John Dewey Middle		
Demographic	Enrollment	Number with at least one ODR
Students with IEP	50	25
Students without IEP	100	20

Horace Mann Middle		
Demographic	Enrollment	Number with at least one ODR
*Students with IEP	50	5
Students without IEP	100	4

- a) Use the answers from the disproportionality calculator to fill in the risk metrics for each school. The Target Demographic Group are **students with IEPs**.

John Dewey Elementary					
	Risk Index	Risk Ratio	Risk Difference	Effect Size†	RDR
*With IEPs					
Without IEPs					

Horace Mann Elementary					
	Risk Index	Risk Ratio	Risk Difference	Effect Size†	RDR
*With IEPs					
Without IEPs					

\*Calculate for students with IEPs as your target demographic group

†Effect size is expressed as a proportion of a standard deviation

b) In the space below, compare and contrast John Dewey Middle and Horace Mann Middle with regard to student enrollment in the two demographic groups and the different disproportionality metrics.

## Appendix A: Formulas

### Risk Index

$$\frac{\text{Number of students in target group who experienced the Outcome}}{\text{Number of students in the target group}}$$

### Risk Ratios

$$\frac{\text{Risk Index of Target Group}}{\text{Risk Index for Reference Group (usually all *but* the target group)}}$$

### Risk Difference

$$(\text{Risk Index of Target Group}) - (\text{Risk Index of Reference Group})$$

### Raw Differential Representation (RDR)

$$\# \text{ of target Students receiving outcome} - \frac{\# \text{ of target students receiving outcome}}{\text{Risk Ratio comparing target to reference}}$$

Or

$$\text{Total \# of Target Group Students} - (\text{Target-Reference Risk Difference})$$

### Discipline Rate (a.k.a. per day, per 100)

$$\left( \frac{\frac{\# \text{ of outcomes}}{\# \text{ of days}}}{\# \text{ of students Enrolled}} \right) \times 100$$