

How to Calculate a Relative Rate Index (RRI):

For all race categories, **DIVIDE THE NUMBER OF YOUTH AT THE DECISION POINT OF INTEREST** (such as referral to juvenile court) **BY THE NUMBER OF YOUTH AT THE PREVIOUS DECISION POINT** (in this case, youth population).

➔ This provides the **RATE** at which a particular decision is made for a particular group of youth.

Now, **DIVIDE** the rate for the **NON-WHITE GROUP** by the rate of the **WHITE GROUP**.

➔ The result is a **RATIO** between the **RATE** for the **NON-WHITE GROUP** and the **RATE** for the **WHITE GROUP**.

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EXAMPLE FOR DETERMINING THE RRI FOR REFERRALS TO JUVENILE COURT USING 2016 MISSOURI STATEWIDE DATA:

1. Divide the number of referrals of **WHITE YOUTH** by the **WHITE POPULATION**.

$$\frac{\text{White Youth Referrals}}{\text{White Population}} = \frac{23,280}{419,074} = 0.055 \times 100 = 5.6\% \text{ RATE}$$

2. Divide the number of referrals of **BLACK** and **HISPANIC YOUTH** by the **BLACK** and **HISPANIC POPULATIONS**.

$$\frac{\text{Black Youth Referrals}}{\text{Black Population}} = \frac{9,459}{81,397} = 0.12 \times 100 = 11.6\% \text{ RATE}$$

$$\frac{\text{Hispanic Youth Referrals}}{\text{Hispanic Population}} = \frac{977}{32,930} = 0.03 \times 100 = 3.0\% \text{ RATE}$$

3. Divide the **RATES** for **BLACK** and **HISPANIC YOUTH** by the **RATE** for **WHITE YOUTH** to produce the **RRI**s.

$$\frac{\text{Black Youth Rate}}{\text{White Youth Rate}} = \frac{0.12}{0.055} = 2.18 \text{ RRI FOR BLACK YOUTH}$$

$$\frac{\text{Hispanic Youth Rate}}{\text{White Youth Rate}} = \frac{0.03}{0.055} = 0.54 \text{ RRI FOR HISPANIC YOUTH}$$

RESULTS:

BLACK YOUTH were slightly over **2 TIMES** more likely to be referred to juvenile court than **WHITE YOUTH**.

WHITE YOUTH were almost **2 TIMES** more likely to be referred to juvenile court than **HISPANIC YOUTH**.