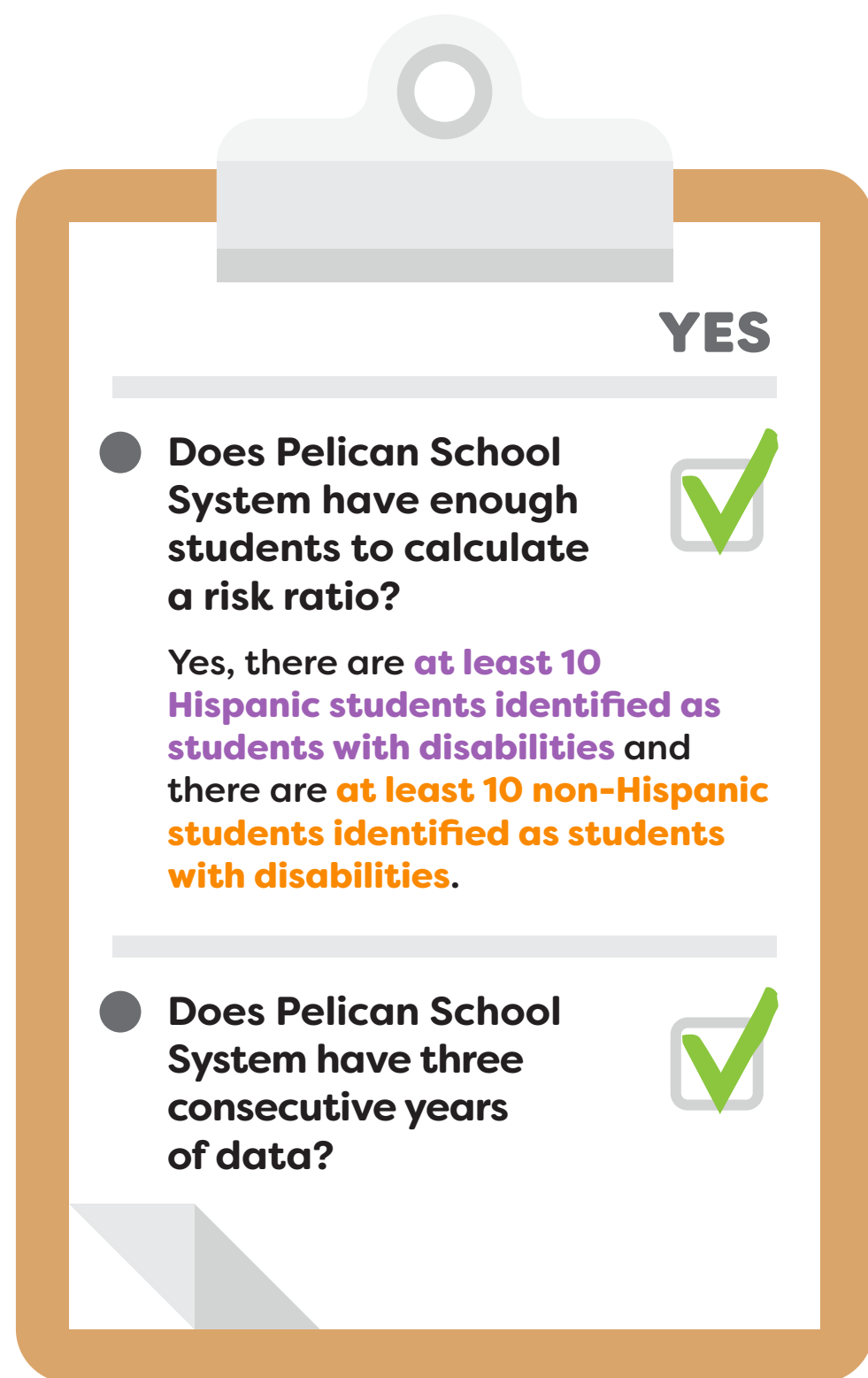# CALCULATING SIGNIFICANT DISPROPORTIONALITY: IDENTIFICATION CASE STUDY

Louisiana collects and examines data to determine if significant disproportionality exists in the identification of students with disabilities, by race/ethnicity, including specific disabilities.

In Pelican School System, we'll use the identification of Hispanic students as students with disabilities as an example to show how Louisiana calculates a risk ratio to determine if a school system is significantly disproportionate in identification of students with disabilities, by race/ethnicity.

1 DETERMINE

Determine whether we will calculate a risk ratio for the identification of Hispanic students with disabilities.

YES

- **Does Pelican School System have enough students to calculate a risk ratio?** ✓

  Yes, there are **at least 10 Hispanic students identified as students with disabilities** and there are **at least 10 non-Hispanic students identified as students with disabilities**.

- **Does Pelican School System have three consecutive years of data?** ✓

2 CALCULATE

Calculate the risk ratio.

$$\frac{40}{100} = .4$$

- There are **40 Hispanic students** identified as students with disabilities out of a total of **100 Hispanic students** in the school system.
  - The likelihood you are identified as a student with a disability if you are **Hispanic** is **40/100 or .4**.

$$\frac{100}{1,000} = .1$$

- There are **100 non-Hispanic students** identified as students with disabilities out of a total of **1,000 non-Hispanic students** in the school system.
  - The likelihood you are identified as a student with a disability if you are **non-Hispanic** is **100/1,000 or .1**.

$$\frac{.4}{.1} = \boxed{4}$$

- In this school system, **Hispanic students are 4.0 times** more likely to be identified as a student with a disability, compared to all other races/ethnicities.
  - This school system would have a risk ratio of **4.0**.

3 COMPARE RESULTS

Compare the result to Louisiana's risk ratio threshold of **3.0**.

If the risk ratio calculation meets or exceeds the threshold for three consecutive years, the school system is significantly disproportionate.

4x

$$4.0 \geq 3.0 = \text{significantly disproportionate}$$

In Pelican School System, Hispanic students are **4.0** (four) times as likely to be identified as a student with a disability when compared to all other racial/ethnic groups. This exceeds the established risk ratio threshold of **3.0**. If this happens three years in a row, Pelican School System is significantly disproportionate in the identification of Hispanic students as students with disabilities.
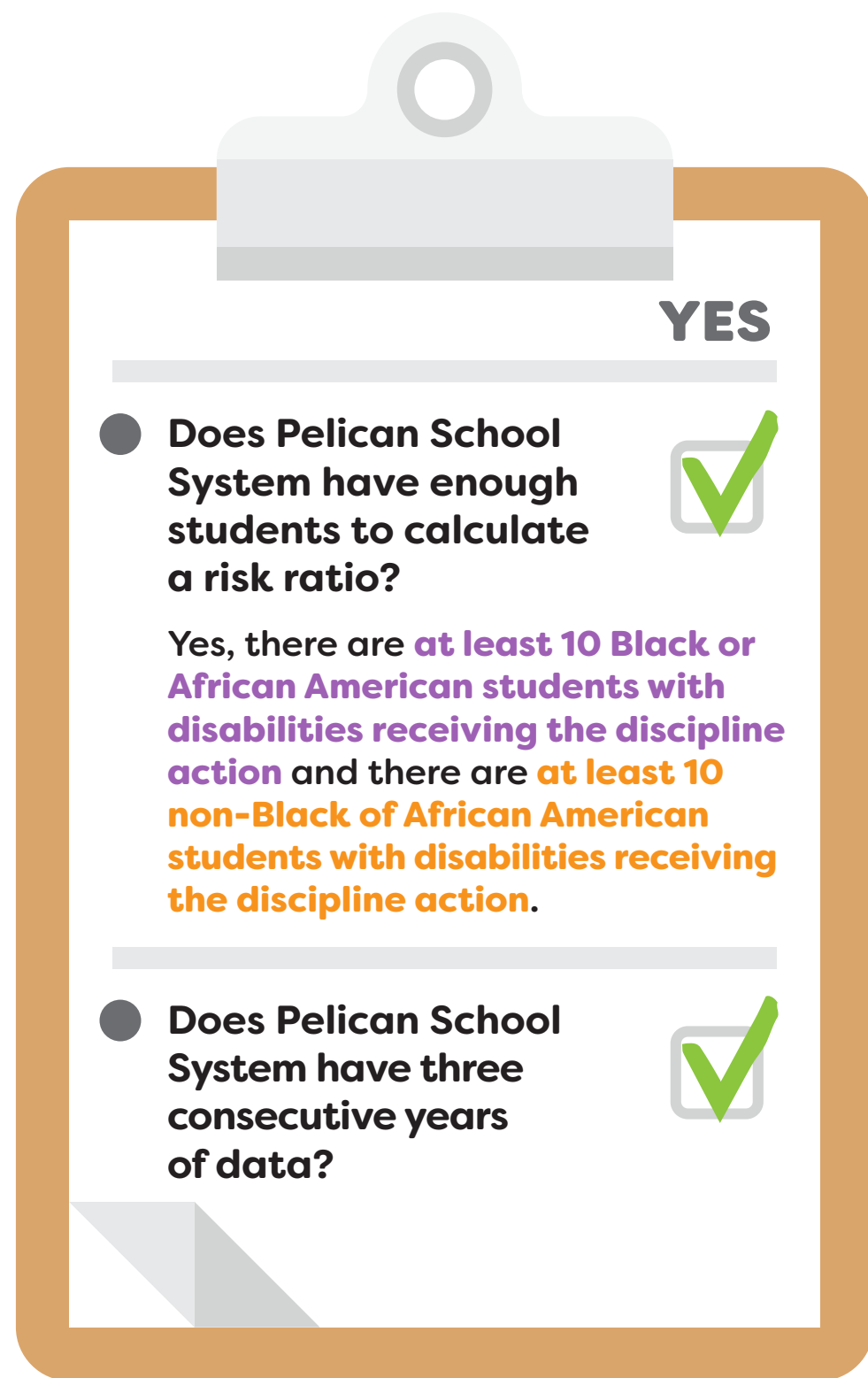
CALCULATING SIGNIFICANT DISPROPORTIONALITY: DISCIPLINE CASE STUDY

Louisiana collects and examines data to determine if significant disproportionality exists in the discipline of students with disabilities, by race/ethnicity.

In Pelican School System, we'll use this example to show how Louisiana calculates a risk ratio for discipline:
out of school suspensions and expulsions (greater than 10 days) of Black or African American students with disabilities.

1 DETERMINE

Determine whether we will calculate a risk ratio for the out of school suspensions or expulsions totaling more than 10 days, of Black or African American students with disabilities.

YES

- **Does Pelican School System have enough students to calculate a risk ratio?** ✔

  Yes, there are **at least 10 Black or African American students with disabilities receiving the discipline action** and there are **at least 10 non-Black of African American students with disabilities receiving the discipline action**.

- **Does Pelican School System have three consecutive years of data?** ✔

2 CALCULATE

Calculate the risk ratio.

$$\frac{50}{100} = .5$$

- There are **50 Black or African American students** with disabilities suspended or expelled out of school (greater than 10 days) out of a total of **100 Black or African American students** with disabilities in the school system.

  ○ The likelihood that a **Black or African American student** with a disability will receive this disciplinary action is **50/100 or .5**.

$$\frac{100}{1,000} = .1$$

- There are **100 non-Black or African American students** with disabilities suspended or expelled out of school (greater than 10 days) out of a total of **1,000 non-Black or African American students** with disabilities in the school system.

  ○ The likelihood that a **non-Black or African American** student with a disability will receive this disciplinary action is **100/1,000 or .1**.

$$\frac{.5}{.1} = \boxed{5}$$

- In this school system, **Black or African American students** with disabilities are **5.0 times** more likely to be suspended or expelled out of school (greater than 10 days) compared to students with disabilities from all other races/ethnicities.

  ○ This school system would have a risk ratio of **5.0**.

3 COMPARE RESULTS

Compare the result to Louisiana's risk ratio threshold of **3.0**.

If the risk ratio calculation meets or exceeds the threshold for three consecutive years, the school system is significantly disproportionate.

5x

$$5.0 \geq 3.0 = \text{significantly disproportionate}$$

In Pelican School System, Black or African American students with disabilities are **5.0** (five) times more likely to be suspended or expelled out of school for more than 10 days when compared to students with disabilities from all other races/ethnicities. This exceeds the established risk ratio threshold of **3.0**. If this happens three years in a row, Pelican School System is significantly disproportionate.