# **Beating the Odds Overview**

October 2017

## What is Beating the Odds (BTO)?

- Beating the Odds shows how a school's performance compares to similar schools across the state.
- It a statistical analysis that provides contextual understanding of a school's College and Career Ready Performance Index (CCRPI) based on student characteristics outside the school's control.
- Each year, about 40% of schools Beat the Odds and 60% of schools do not Beat the Odds due to how the statistical model is structured.

### What school characteristics are included in BTO?

- The school's CCRPI score excluding the Challenge Bonus Points is the "dependent" variable in the equation, meaning that it is the variable against which all the other variables are compared.
- BTO takes into account school characteristics typically considered outside of a school's control as "independent variables," which include:
  - Percent of Students by Race/Ethnicity;
  - o Percent of Students who are Students with Disabilities (SWD), English Language Learners (ELL), or Economically Disadvantaged (ED);
  - o Enrollment (October FTE K-12 enrollment count);
  - o Student Mobility Rate (Churn Rate); and
  - o Grade Cluster (Elementary, Middle, High, Elementary/Middle, Middle/High, or K-12).

#### How is BTO calculated?

• The following page lists the steps and includes a figure to describe how BTO works. For a more detailed explanation and full datasets, access additional resources on GOSA's Beating the Odds website.

## If a school "Beats the Odds," does it mean that a school is performing well?

- Not necessarily. Schools that "Beat the Odds" may have low CCRPI scores and/or gaps in performance because BTO compares a school with similar schools. In addition, schools with high CCRPI scores sometimes do not "Beat the Odds" if they are performing lower than other schools with similar characteristics.
- The results are only <u>one</u> piece of information that should be used to analyze a school's performance.

## Why does BTO exist?

• The primary purpose is to complement the CCRPI as an accountability measure in performance contracts between schools or districts and the State Board of Education, including charter schools, charter systems, and Strategic Waiver School Systems (SWSS). For more information on charter system and charter school accountability, <u>click here</u>. For more information on SWSS accountability, <u>click here</u>.

## Who calculates BTO?

• The Governor's Office of Student Achievement (GOSA) calculates BTO each year after the CCRPI is released. The results are shared with the Georgia Department of Education and posted on GOSA's website: https://gosa.georgia.gov/beating-odds-analysis

## How can I find out what schools are similar to my school?

• The BTO formula does not provide a list of specific, similar schools since the model is run for all schools at once. However, GOSA's <a href="Schools Like Mine">Schools Like Mine</a> dashboard provides a list of similar schools based on student demographics and school size.

## How can a school improve its chance of Beating the Odds?

The best way to improve the chance of Beating the Odds is to focus on improving a school's CCRPI score.



#### **Beating the Odds Graphical Representation** Step 4 Step 1 Steps 2 and 3 If CCRPI is higher Predicted CCRPI and than 72.1, then the Confidence Interval school beats the School Average The range below is odds. Characteristics for relationship an example. Each Roughly 40% of Compare average All Schools between each school is different. schools each year. relationship with **CCRPI** (See p. 1 for list of characteristic and 72.1 actual school Score for All characteristics) the CCRPI score characteristics Schools If CCRPI is less than or equal to 72.1, then the school does not beat the odds. Roughly 60% of 67.9 schools each year. **Step 1: Key Question Answered** Step 2 & 3: Key Ouestion Answered **Step 4: Key Question Answered** If each school's characteristics had the How much does each characteristic on How sure are we that the school's actual average relate to the CCRPI? average relationship with its CCRPI, what CCRPI is higher than this predicted CCRPI? would we predict the CCRPI score to be?

# **Beating the Odds Steps**

- **Step 1:** All schools' CCRPI scores and school characteristics are included in a statistical regression model that determines how much each characteristic on average contributes to the CCRPI score.
- **Step 2:** The statistical model then predicts what each school's CCRPI would be if we only looked at the estimates calculated in Step 1 and ignored its actual CCRPI.
- **Step 3:** Since the prediction is based on many (not all) factors that relate to the CCRPI, there is error in the prediction. So, we estimate that error using a 95% confidence interval around the predicted CCRPI, which is a generally accepted method for determining a range in statistics.
- **Step 4:** If a school's actual CCRPI is higher than the confidence interval, then we can be confident (in statistical terms) that the school's actual CCRPI is higher than the BTO analysis predicts (more than 97.5% sure).

For a more detailed explanation, access the <u>BTO Calculation Guide</u> on GOSA's website.

