

## **Beating the Odds Calculation Correction**

Governor's Office of Student Achievement

May 5, 2017

Last month, a school district staff person identified an issue in the Beating the Odds model where schools serving multiple grade clusters had inaccurate CCRPI Scores without Challenge Points in the dataset if one or more of those grade clusters had not earned a CCRPI Score. GOSA analyzed the issue and realized that the formula did not properly account for proportional enrollment in schools where a grade cluster had too few students to yield a CCRPI score. Most of the schools spanning clusters earn CCRPI scores in those clusters, so the number of schools affected in any given year was 15 or less (less than 1%).

To address this issue, GOSA decided to recalculate the analysis. Because BTO is a statistical model that generates a “predicted CCRPI” based upon all schools’ data, the CCRPI and grade cluster changes outlined above required the entire model to be reanalyzed. Therefore, the BTO statuses of schools that did not have grade cluster estimation errors were affected, particularly those that were previously just above or below the threshold.

As part of this revised analysis, GOSA incorporated an updated list of schools participating in the Community Eligibility Provision (CEP) of the National School Lunch Program for the 2014 and 2015 BTO. Schools participating in CEP have 100% of students counted as economically disadvantaged. When estimating the 2014 and 2015 BTO models in August 2015, GOSA used the CEP lists available at the time from the GaDOE School Nutrition Office. In November 2016, GOSA received the CEP list for the 2016 BTO from the GaDOE Accountability Division. This file also included an updated 2014 and 2015 CEP list with corrections made to some schools’ designations. The decision was made at that time not to re-estimate the BTO for prior years since it had used the most accurate data available when analyzed. However, given that the current issue requires re-estimation of prior years, GOSA has incorporated the updated CEP school list to ensure the most accurate CEP designations are used.

The following document outlines the issues identified and schools affected for each of the five Beating the Odds years (2012-2016). Because BTO is a model that compares performance of all schools within a school year, most of the schools with changed BTO statuses did not have updated data for the reasons described above.

GOSA and the GaDOE have decided to “hold harmless” the schools that were originally “Beating the Odds” but are no longer in that category. As a result, this adjustment does not take away the BTO status from any schools; rather, it only helps schools that are now Beating the Odds. The updated BTO files for each year have included a star designation by the BTO status if the school is a “hold harmless” BTO school.

<b>Corrected Beating the Odds Designations by Year</b>		
Year	Originally BTO, No Longer BTO ( <i>Held Harmless</i> )	Originally Not BTO, Now BTO
2016	15	16
2015	11	18
2014	7	5
2013	1	0
2012	3	3

## 2016 Beating the Odds (BTO) Corrections

### Issue Identified

Most schools in Georgia serve one grade cluster (Elementary, Middle, or High), but a subset of schools serve more than one cluster. Most of the schools spanning clusters also earn CCRPI scores in those clusters. To create a CCRPI Single Score without Challenge Points, the Beating the Odds calculation formula uses the same proportional enrollment data that the GaDOE uses with the traditional CCRPI. The formula multiplies the proportional enrollment by the CCRPI for each grade cluster and then sums the results. It functions properly for all schools except those with enrollment in a grade cluster but not a CCRPI score due to small enrollment (e.g., schools that primarily serve one grade cluster but have a few students from another grade cluster). In these cases, the formula did not adjust the proportion to remove the students enrolled in grade clusters without a CCRPI score. As a result, these schools' CCRPI Score without Challenge Points in the BTO model were lower than in actuality. This error reduced their likelihood of Beating the Odds and changed which grade cluster group these schools were classified as in the statistical regression. The following schools' CCRPI and grade cluster assignment were affected:

Schools with Corrected CCRPI w/o Challenge Points					
District Name	School Name	Original CCRPI w/o Challenge	Recalculated CCRPI w/o Challenge	Original Grade Cluster Classification	Corrected Grade Cluster Classification
Bleckley County	Bleckley County Success Academy	28.5	37.0	MH	H
Brooks County	Brooks County High School	72.0	72.5	MH	H
Chatham County	Low Elementary School	52.9	53.5	EMH	E
Cobb County	Devereux Ackerman Academy	27.4	40.7	EMH	H
DeKalb County	International Student Center	26.3	26.5	MH	M
DeKalb County	DeKalb Alternative School	25.5	41.4	MH	H
Gwinnett County	Gwinnett Intervention Education Center West	27.4	40.0	MH	H
Habersham County	Habersham Success Academy	42.1	53.7	MH	H
Hall County	Lanier Career Academy	29.5	32.6	MH	H
Henry County	EXCEL Academy	29.8	38.9	MH	H
Richmond County	Alternative Education Center at Lamar	12.3	24.8	MH	M
Thomas County	The Renaissance Center for Academic and Career Development	12.3	40.0	MH	M
State Charter Schools	Ivy Preparatory Young Men's Leadership Academy, Inc.	56.5	60.8	EMH	EM
State Charter Schools	Ivy Preparatory Academy, Inc	48.5	50.6	EMH	EM
State Charter Schools	Ivy Preparatory Academy at Gwinnett, Inc.	56.3	66.0	MH	M

Because BTO is a statistical model that generates a “predicted CCRPI” based upon all schools’ data, the CCRPI and grade cluster changes outlined above required the entire model to be reanalyzed. With the re-estimated model, 31 schools’ BTO statuses changed, many of which were unrelated to the data issue outlined above. The 2016 BTO had the largest effect because schools could Beat the Odds through either the Free/Reduced Price Lunch Model or the Direct Certification Model. These schools are listed below:

<b>2016 Originally BTO, No Longer BTO (Held Harmless)</b>						
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original FRL Upper Bound</b>	<b>Recalculated FRL Upper Bound</b>	<b>Original DC Upper Bound</b>	<b>Recalculated DC Upper Bound</b>
Atlanta Public Schools	APS-Forrest Hills Academy	23.2	24.976	32.279	21.819	28.173
Atlanta Public Schools	Charles Drew Charter School JA/SA	67.0	66.996	68.717	69.109	71.318
Chatham County	Low Elementary School	53.5	54.966	57.112	51.259	56.508
Chattahoochee County	Chattahoochee County High School	74.1	73.703	74.140	76.525	77.009
Cobb County	Campbell High School	74.5	75.762	75.743	74.344	74.609
Colquitt County	CA Gray Junior High School	70.4	72.008	74.007	68.066	70.643
DeKalb County	Lithonia High School	61.9	61.779	61.915	63.954	64.159
DeKalb County	Mary McLeod Bethune Middle School	54.9	55.142	55.458	54.568	54.908
Fulton County	New Prospect Elementary School	91.5	91.473	91.616	91.593	91.590
Glascocock County	Glascocock County Consolidated School	72.7	74.455	76.405	72.371	72.711
Gwinnett County	Gwinnett InterVention Education (GIVE) Center East	29.1	22.584	31.404	30.586	38.242
Hall County	White Sulphur Elementary School	63.9	66.719	66.817	63.859	63.978
Paulding County	Northside Elementary School	76.1	76.473	76.565	76.054	76.245
Richmond County	Wilkinson Gardens Elementary School	51.5	56.024	56.078	51.442	51.579
State Charter Schools	Mountain Education Charter High School	55.0	54.724	57.362	61.912	64.266

<b>2016 Originally Not BTO, Now BTO</b>						
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original FRL Upper Bound</b>	<b>Recalculated FRL Upper Bound</b>	<b>Original DC Upper Bound</b>	<b>Recalculated DC Upper Bound</b>
Atlanta Public Schools	M. A. Jones Elementary School	54.3	57.714	57.670	54.433	54.216
Chatham County	Esther F. Garrison School of Visual and Performing Arts	77.3	78.570	78.312	77.339	77.033
Chattooga County	Summerville Middle School	66.1	68.366	68.297	66.107	65.983
Cobb County	Devereux Ackerman Academy	40.7	46.169	55.340	28.094	36.401
Decatur City	Fifth Avenue Elementary	84.1	85.046	85.037	84.217	84.066

2016 Originally Not BTO, Now BTO						
District Name	School Name	CCRPI w/o Challenge	Original FRL Upper Bound	Recalculated FRL Upper Bound	Original DC Upper Bound	Recalculated DC Upper Bound
Dodge County	North Dodge Elementary School	67.2	67.222	67.005	68.389	68.320
Franklin County	Franklin County Middle School	72.6	73.869	73.750	72.720	72.495
Grady County	Whigham Elementary School	65.5	65.596	65.272	69.548	69.367
Gwinnett County	Lanier Middle School	80.0	80.009	79.941	80.197	80.199
Gwinnett County	Summerour Middle School	71.3	71.329	71.164	72.081	72.145
Hall County	Wauka Mountain Elementary School	78.5	78.517	78.418	78.908	78.899
Harris County	Creekside School	78.0	78.318	78.141	78.035	77.993
Morgan County	Morgan County Elementary School	74.2	74.972	74.821	74.357	74.126
Muscogee County	Wynnton Elementary School	63.1	63.112	63.080	63.934	63.858
Richmond County	Alternative Education Center at Lamar	24.8	16.163	23.510	18.067	27.687
Rome City	Rome High School	72.4	72.402	72.244	74.939	75.021

## **2015 Beating the Odds (BTO) Corrections**

### **Issue Identified**

The same issue outlined in 2016 occurred in 2015. The following schools' CCRPI and grade cluster assignment were affected:

<b>Schools with Corrected CCRPI w/o Challenge Points</b>					
<b>District Name</b>	<b>School Name</b>	<b>Original CCRPI w/o Challenge</b>	<b>Recalculated CCRPI w/o Challenge</b>	<b>Original Grade Cluster Classification</b>	<b>Corrected Grade Cluster Classification</b>
Brooks County	Brooks County High School	66.1	66.3	MH	H
Carroll County	KidsPeace	39.5	51.3	MH	H
Chatham County	Low Elementary School	52.1	52.9	EMH	E
Cobb County	Devereux Ackerman Academy	25.0	36.9	EMH	H
Colquitt County	Colquitt County Achievement Center	36.6	41.9	MH	H
DeKalb County	DeKalb Alternative School	19.6	34.0	MH	H
Hall County	Lanier Career Academy	36.1	43.4	MH	H
Henry County	Patrick Henry High School	37.3	45.2	MH	H
Lee County	Lee High School 9th Grade Campus	81.2	81.4	MH	H
Murray County	Mountain Creek Academy School	44.8	49.7	MH	H
State Charter Schools	Ivy Prep Academy at Kirkwood for Girls School	44.9	47.6	EMH	EM

In addition, as discussed in the introduction, in November 2016, GOSA updated the 2014 and 2015 Community Eligibility Provision (CEP) list with corrections made to some schools' designations. These schools are recoded to have 100% of students as economically disadvantaged. The decision was made at that time not to recalculate BTO for prior years since it had used the most accurate data available when analyzed. However, given that the current issue requires recalculation for prior years, GOSA has incorporated the updated CEP school list to ensure the most accurate CEP designations are used. Because BTO is a statistical model that generates a "predicted CCRPI" based upon all schools' data, the CCRPI and grade cluster changes outlined above required the entire model to be reanalyzed. As a result, 29 schools' BTO statuses changed, many of which were unrelated to either data issue. These schools are listed below:

<b>2015 Originally BTO, No Longer BTO (Held Harmless)</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
Atlanta Public Schools	The School of the Arts at Carver	61.2	59.888	61.527
Bibb County	Northeast High School	61.7	60.766	62.378
Cherokee County	Etowah High School	84.1	83.883	84.121
Cherokee County	Johnston Elementary School	78.5	78.405	78.653
Colquitt County	Odom Elementary School	64.5	64.161	64.576

<b>2015 Originally BTO, No Longer BTO (Held Harmless)</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
Fulton County	Crabapple Middle School	81.6	81.574	81.809
Fulton County	Haynes Bridge Middle School	78.5	78.435	78.546
Gwinnett County	Gwinnett Online Campus	75.0	74.996	77.589
Houston County	Lindsey Elementary School	57.6	57.568	57.978
Lowndes County	Westside Elementary School	77.5	77.281	77.501
Peach County	Fort Valley Middle School	60.8	60.183	62.072

<b>2015 Originally Not BTO, Now BTO</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
Atlanta Public Schools	South Atlanta School of Computer Animation and Design	61.4	61.566	61.386
Chattooga County	Summerville Middle School	65.0	65.132	64.991
Cobb County	Pine Mountain Middle School	72.3	72.316	72.256
DeKalb County	Bob Mathis Elementary School	58.5	58.550	57.998
DeKalb County	Druid Hills High School	74.9	75.021	74.886
Franklin County	Franklin County Middle School	71.4	71.462	71.358
Fulton County	Palmetto Elementary School	60.7	60.763	60.379
Grady County	Whigham Elementary School	65.4	65.474	65.168
Gwinnett County	Gwin Oaks Elementary School	81.7	81.739	81.502
Gwinnett County	South Gwinnett High School	69.7	69.831	69.533
Lee County	Lee High School 9th Grade Campus	81.4	85.469	80.168
Lincoln County	Lincoln County Elementary School	70.1	70.274	69.932
Marion County	L. K. Moss Elementary School	66.6	66.699	66.383
Newton County	Newton High School	68.7	68.743	68.467
Pulaski County	Hawkinsville High School	70.7	70.778	70.551
Pulaski County	Pulaski County Elementary School	69.0	69.126	68.772
Spalding County	Rehoboth Road Middle School	69.8	69.853	69.707
Webster County	Webster County Elementary/Middle School	63.7	63.924	63.689

## 2014 Beating the Odds (BTO) Corrections

### Issue Identified

For 2012-2014, the code used to calculate the CCRPI without Challenge Points was slightly different than in 2015 and 2016. As a result, only schools spanning three grade clusters that only had CCRPI scores in two grade clusters were affected. In addition, the grade cluster assignment was not affected. The following school's CCRPI was affected:

Schools with Corrected CCRPI w/o Challenge Points			
District Name	School Name	Original CCRPI w/o Challenge	Recalculated CCRPI w/o Challenge
Gwinnett County	Gwinnett Online Campus	64.1	69.3

As described above for 2015, GOSA also incorporated the updated 2014 Community Eligibility Provision (CEP) list with corrections made to some schools' designations based upon the list received from GaDOE in November 2016. Because BTO is a statistical model that generates a "predicted CCRPI" based upon all schools' data, the CCRPI and grade cluster changes outlined above required the entire model to be reanalyzed. As a result, 12 schools' BTO statuses changed, many of which were unrelated to either data issue. These schools are listed below:

2014 Originally BTO, No Longer BTO (Held Harmless)				
District Name	School Name	CCRPI w/o Challenge	Original Upper Bound	Recalculated Upper Bound
Atlanta Public Schools	Bunche Middle School	59.8	59.784	59.893
Atlanta Public Schools	Therrell School of Law, Government and Public Policy	51.6	50.245	52.478
Atlanta Public Schools	Coretta Scott King Young Women's Academy High School	55.9	54.084	56.196
Cherokee County	Bascomb Elementary School	88.1	87.979	88.106
Clayton County	Babb Middle School	70.4	70.384	70.464
DeKalb County	DeKalb Elementary School of the Arts	68.0	65.487	68.901
Fayette County	Braelinn Elementary School	90.0	89.976	90.072

2014 Originally Not BTO, Now BTO				
District Name	School Name	CCRPI w/o Challenge	Original Upper Bound	Recalculated Upper Bound
Bibb County	Bernd Elementary School	61.2	61.320	61.182
Bibb County	Burdell Elementary School	60.7	60.770	60.596
DeKalb County	Lithonia Middle School	60.2	60.246	60.115
Rockdale County	Rockdale County High School	64.0	64.027	63.959
State Charter Schools	Pataula Charter Academy	75.4	75.597	75.020

**2013 Beating the Odds (BTO) Corrections**

**Issue Identified**

The same issue outlined in 2014 occurred in 2013. The following school’s CCRPI and grade cluster assignment was affected:

<b>Schools with Corrected CCRPI w/o Challenge Points</b>			
<b>District Name</b>	<b>School Name</b>	<b>Original CCRPI w/o Challenge</b>	<b>Recalculated CCRPI w/o Challenge</b>
Talbot County	Central Elementary/High School	41.9	60.2

Because BTO is a statistical model that generates a “predicted CCRPI” based upon all schools’ data, the CCRPI and grade cluster changes outlined above required the entire model to be reanalyzed. As a result, 1 schools’ BTO statuses changed, many of which were unrelated to this data issue. These schools are listed below:

<b>2013 Originally BTO, No Longer BTO (Held Harmless)</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
State Charter Schools	Ivy Prep Academy at Kirkwood for Girls School	72.9	72.771	72.936



**2012 Beating the Odds (BTO) Corrections**

**Issue Identified**

The same issue outlined in 2014 occurred in 2012. The following school’s CCRPI was affected:

<b>Schools with Corrected CCRPI w/o Challenge Points</b>			
<b>District Name</b>	<b>School Name</b>	<b>Original CCRPI w/o Challenge</b>	<b>Recalculated CCRPI w/o Challenge</b>
State School	Georgia School for the Deaf	30.1	36.4

In addition, as part of this reanalysis, it was discovered that the 2013 FTE student enrollment was used instead of the 2012 FTE student enrollment. For the re-estimated model, the 2012 FTE student enrollment is now used. This adjustment resulted in additional schools’ BTO statuses changing statuses. In total, 6 schools’ BTO statuses changed. These schools are listed below:

<b>2012 Originally BTO, No Longer BTO (Held Harmless)</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
Cherokee County	Oak Grove Elementary School	76.3	76.118	76.439
Cobb County	South Cobb High School	65.3	65.242	65.344
Fulton County	Northwood Elementary School	83.9	83.897	83.903

<b>2012 Originally Not BTO, Now BTO</b>				
<b>District Name</b>	<b>School Name</b>	<b>CCRPI w/o Challenge</b>	<b>Original Upper Bound</b>	<b>Recalculated Upper Bound</b>
Camden County	Saint Mary’s Elementary School	73.6	73.645	73.567
Paulding County	Union Elementary School	74.2	74.229	74.184
Troup County	LaGrange High School	71.9	71.931	71.871

## **Conclusion**

The updated BTO files, providing the BTO designations and all variables included in the model, have been reposted on the GOSA [Beating the Odds website](#).