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Urban Charter School Study –  
State Presentation User Guide  
**2015**

# Urban Charter School Study – State Presentation User Guide 2015

## Introduction

This document is designed to accompany the CREDO Urban Charter School study presentations on the impact of urban charter schools in individual states. Descriptions of each slide are presented in the same order as are the state level presentation slides, designed to aid interpretation. Additional explanations are also provided where necessary with respect to the method of comparison.

Some states included in this study have only one major urban region. Others have multiple urban communities that met the criteria for inclusion. For the multi-region states, the regions are presented sequentially, with the slides in the same order for every region.

To protect the privacy of students and to prevent the possible identification of individual or small groups of students, CREDO does not present demographic or impact results for groups of students less than or equal to 5<sup>1</sup>. Where a student group falls below the minimum number, the result has been deleted. Depending on the group in question, this may result in either a partial obstruction of a graph or the elimination of a slide altogether.

## Charter School Impacts on Student Academic Progress

To correctly identify the contribution of a school to the performance of students, it is necessary to follow individual students over time and see how their learning changes from one year to the next. That increment of time is called a growth period. Through examination of successive test scores, it is

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<sup>1</sup> The minimum cell size is larger in CA, FL, IL, LA, MA, MN, NJ, PA, UT, WA, and CO per requirements of the memorandum of understanding with these states.

possible to create a measure of academic progress for a student during the growth period and use statistical models to focus in on the portion of that learning gain that can be attributed to the school a student attends. Thus a student enrolled in a school of four tested grades would have three growth periods and three measures of academic gains. From these it is possible to estimate the average amount of academic growth a typical student in a charter school will learn in a growth period, and compare that to the equivalent average computed for matched peers in Traditional Public Schools (TPS). This is the basic test on which the analysis of urban charter schools rests. The results for each region contain the following 15 analyses, which differ either in the groups of students that are included or by the inclusion of stratifying factors like gradespan or growth period.

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – All Students](#)

This graph compares the average yearly academic growth of all matched students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of similar students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – All Students by Growth Period](#)

This graph compares the average yearly academic growth of all matched students in charter and traditional public schools (TPS), separated by each year of enrollment. This graph provides evidence of a trend (or lack thereof) in charter quality, as the marginal effect of charter enrollment increases or decreases over the period of analysis. Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of similar students in TPS in the same year of enrollment. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – All Students by Gradespan](#)

This graph compares the average yearly academic growth of all matched students in charter and traditional public schools (TPS), separated by school level. Each bar represents the marginal effect of charter enrollment relative to matched TPS students in similar schools. The excluded growth rate, or “zero” line, is the average yearly growth of 5<sup>th</sup> grade TPS students. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size,

students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – All Students by Years of Charter Enrollment

This graph compares the average yearly academic growth of all matched students in charter and traditional public schools (TPS), broken down by years of successive enrollment in charter school. Because many students enter charter schools in Kindergarten or first grade (which do not participate in state accountability testing), their first observable test scores occur in most states in third grade. Therefore, they cannot be included in this analysis.

In order to get a clear idea of how students perform in their first, second and continuing years in charter schools, we restrict the computation only to those students who are observed to transfer from TPS to a charter school into a grade that is tested. It is common for the marginal impact of charter enrollment to rise over time, possibly due to either the fade out of negative transition effects or selection bias, as students best matched to their new school's environment are more likely to persist.

Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of similar students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk next to the effect size, students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – White Students

This graph compares the average yearly academic growth of all matched White students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched White students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, White students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Asian Students

This graph compares the average yearly academic growth of all matched Asian students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched Asian students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated

by the presence of asterisk(s) next to the effect size, Asian students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Native American Students

This graph compares the average yearly academic growth of all matched Native American students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched Native American students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, Native American students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Black Students

This graph compares the average yearly academic growth of all matched Black students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched Black students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, Black students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Hispanic Students

This graph compares the average yearly academic growth of all matched Hispanic students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched Hispanic students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – All Students Eligible for Free/Reduced Price Lunch

This graph compares the average yearly academic growth of all matched students eligible for free or reduced price lunches in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of similar students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, students experience greater

average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Black Students in Poverty](#)

This graph compares the average yearly academic growth of all matched Black students in poverty in charter and traditional public schools (TPS). Unlike in previous graphs, marginal yearly growth is provided for charter and TPS students, relative to the average growth of White non-poverty TPS students. Similar to the previous graphs, if the bar representing charter or TPS growth rises above the “zero” line, and the result is statistically significant, this suggests that Black students in poverty experience greater average yearly growth than the excluded group, in this case White non-poverty TPS students. The primary comparison of interest, however, is the relative size of the charter and TPS growth effects. The charter bars are shaded if the difference between their average growth and that of matched Black TPS students in poverty is significantly different from one another.

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Hispanic Students in Poverty](#)

This graph compares the average yearly academic growth of all matched Hispanic students in poverty in charter and traditional public schools (TPS). Unlike in previous graphs, marginal yearly growth is provided for charter and TPS students, relative to the average growth of White non-poverty TPS students. Similar to the previous graphs, if the bar representing charter or TPS growth rises above the “zero” line, and the result is statistically significant, this suggests that Hispanic students in poverty experience greater average yearly growth than the excluded group, in this case White non-poverty TPS students. The primary comparison of interest, however, is the relative size of the charter and TPS growth effects. The charter bars are shaded if the difference between their average growth and that of matched Hispanic TPS students in poverty is significantly different from one another.

#### [Average Academic Growth for Charter School Students Relative to Traditional Public Schools – English Language Learner Students](#)

This graph compares the average yearly academic growth of all matched English Language Learner students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of similar students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, English Language Learner students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Special Education Students

This graph compares the average yearly academic growth of all matched Special Education students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched Special Education students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, Special Education students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).

### Average Academic Growth for Charter School Students Relative to Traditional Public Schools – Retained Students

This graph compares the average yearly academic growth of all matched retained students in charter and traditional public schools (TPS). Each bar represents the marginal effect of charter enrollment, meaning that the basis of comparison, or “zero” line, is the average yearly growth of matched retained students in TPS. If the bar rises above the “zero” line, and the result is statistically significant, indicated by the presence of asterisk(s) next to the effect size, retained students experience greater average yearly growth in charter schools than they would have experienced in their local TPS (and vice versa).