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Expanding on the 2009 CREDO National Charter School Study *Multiple Choice: Charter School Performance in 16 States*, this report examines the performance of Pennsylvania charter schools for the period 2007 - 2010.

Compared to the educational gains the charter students would have had in their traditional public schools, the analysis shows that students in Pennsylvania charter schools on average make smaller learning gains. More than one quarter of the charter schools have significantly more positive learning gains than their traditional public school counterparts in reading, but their performance is eclipsed by the nearly half of charter schools that have significantly lower learning gains. In math, again nearly half of the charter schools studied perform worse than their traditional public school peers and one quarter outperform them.

This analysis builds on the methodology used for the 2009 study. The approach uses a quasi-experimental design of matched pairs that are followed over time. Learning gains as measured on state standardized achievement tests are the outcome used to gauge the contributions of charter schools compared to the learning gains that would have occurred for those students in traditional public school settings.

To create a reliable comparison group for our study, we attempted to build a Virtual Control Record (VCR) for each charter school student. Our approach is displayed in Figure 1. We identify all the traditional public schools that have students who transfer to a given charter school; each of these schools is a "feeder school." Once a school qualifies as a feeder school, all the students in the school become potential matches for a student in a particular charter school. All the student records from all the feeder schools are pooled – this becomes the source of records for creating the virtual match. Using the records of the students in those schools in the year prior to the test year of interest (t₀), CREDO selects all of the available records that match each charter school student.

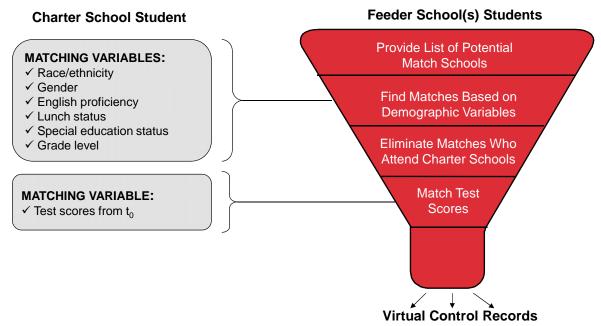
Match factors include:

- Grade-level
- Gender
- Race/Ethnicity
- Free or Reduced Price Lunch Status
- English Language Learner Status
- Special Education Status
- Prior test score on state achievement tests

The scores from the test year of interest are then averaged and a Virtual Control Record is produced. That record is completely masked, because there is no trace of the specific school that originated the contributing records. The VCR produces a score for the test year of interest that corresponds to the expected value results of matching techniques used in other studies, such as propensity matching. A technical appendix detailing our methodology is available at credo.stanford.edu.

¹ For the interested reader, the national report is available at credo.stanford.edu.

Figure 1: CREDO VCR Methodology



This document reports on the analysis of 4 years of schooling, beginning with the 2006-2007 school year and concluding with the 2009-2010 data. A total of 73,085 charter school students from 116 charter schools are followed for as many years as data are available. The students are drawn from Grades 3 - 8, since these are the grades that are covered by the state achievement testing program that could be linked over this time period using our VCR methodology. An identical number of virtual comparison students are included in the analysis. In Pennsylvania, it was possible to create virtual matches for 85 percent of the charter school students in reading and 84 percent in math. This proportion assures that the results reported here can be considered indicative of the overall performance of charter schools in the state. The total number of observations is large enough to be confident that the tests of effect will be sensitive enough to detect real differences between charter school and traditional school students at the p<.05 level. This is also true for each student subgroup examined, as can be seen in Table 1 below.

Table 1: Demographic Composition of Matched Charter Students included in the Study, 2007-2010

Student Group	% in Charters	# in Charters
Pennsylvania Charter Students	100%	61,770
Brick & Mortar Students	70%	43,065
Cyber Students	30%	18,705
Black Students	47%	29,098
Hispanic Students	9%	5,692
White Students	41%	25,498
Free/Reduced Lunch Students	61%	37,617
Special Education Students	13%	8,164
English Language Learner Students	1%	775
Grade Repeating Students	2%	1,146

Academic growth on state achievement tests is used as the outcome of interest. For the purposes of this report, the time period denoted "2008" covers growth between the 2006-2007 and 2007-2008 school years. This period can also be thought of as the growth from the spring 2007 test to the spring 2008 test. The time period denoted "2009" corresponds to the year of growth between the 2007-2008 and 2008-2009 school years, and the time period denoted "2010" corresponds to the year of growth between the 2008-2009 and 2009-2010 school years. In other words, the label refers to the second spring term of each growth period, not the spring of the initial testing year.

All test scores in each grade and for each subject were standardized around the statewide average score for that specific test. The transformation of scores puts all tests on a common reference scale so that scores can be compared across subjects, across grades and across years. Academic growth for an individual student is judged relative to his place in the distribution of scores over time. If all students learn exactly the same amount in a year, then their places in the distribution will not change; but if some

students learn more than others, then their scores move ahead in the distribution.

In each case, the analysis examines whether students in charter schools in Pennsylvania outperform their traditional public school counterparts under a variety of scenarios. In all the scenarios, a number of control factors are applied to the estimation so that the contribution of the schools themselves can be isolated from other potentially confounding influences. Each of the scenarios is presented in the following sections of the report.

First, charter school performance overall is examined relative to traditional public schools, while holding all other factors constant. The results appear in Figure 2. Students in Pennsylvania charter schools learned significantly less on average than their virtual counterparts in both reading and mathematics.

A Roadmap to the Graphics

The graphics in this report have a common format.

Each graph presents the average performance of charter students relative to their pertinent comparison student. The reference group differs depending on the specific comparison. Where a graph compares student sub-group performance, pertinent the comparison student is the same for both groups. Each graph is labeled with the pertinent comparison group for clarity.

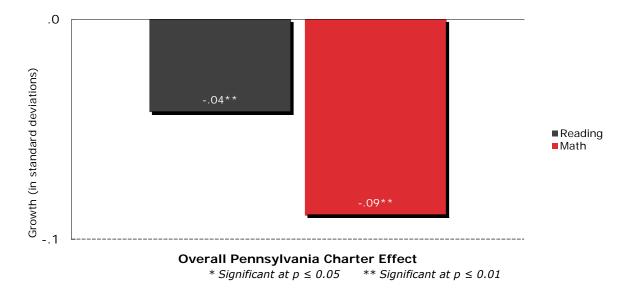
The **height** of the bars in each graph reflects the magnitude of difference between traditional public school and charter school performance over the period studied.

Stars are used to reflect the level of statistical significance of the difference; the absence of stars means that the effect is not statistically different from zero.

Comparisons of the performance of similar student sub-groups contain an additional test of the absolute difference between the two subgroups. Where a charter school student subgroup has learning gains that are statistically significantly different, the bars have a gradient shade.

Figure 2: Average Learning Gains in Pennsylvania Charter Schools, 2007 – 2010

Compared to Gains for VCR Students in Each Charter Schools' Feeder Schools



DISTRIBUTION OF CHARTER SCHOOL PERFORMANCE IN PENNSYLVANIA

While the numbers reported above represent the average learning gains for charter school students across the state, the average tells only part of the story. Parents and policy-makers are also interested in knowing the distribution around the average, and specifically how schools perform compared to it. In order to determine this distribution of performance, we test the average experience in the VCR sample for students in each school; put another way, we compared each school's average effect to the average of all the comparison students in traditional schools. The average VCR is the correct comparison, since charter schools are required to take any and all applicants or to select by lottery if they are oversubscribed.

Table 2 below shows the breakout of performance across the 116 Pennsylvania charter schools included in this study, apart from 17 schools in which there were an insufficient number of individual student records to calculate a representative school-wide average level of performance.

Table 2: Performance of Pennsylvania Charter Schools 2007 - 2010 Compared to Pennsylvania Average VCR Learning Gains

	Significantly Worse		Not Sign	nificant	Significantly Better	
Subject	Number	Percent	Number	Percent	Number	Percent
Reading	39	39%	30	30%	30	30%
Math	46	46%	28	28%	25	25%

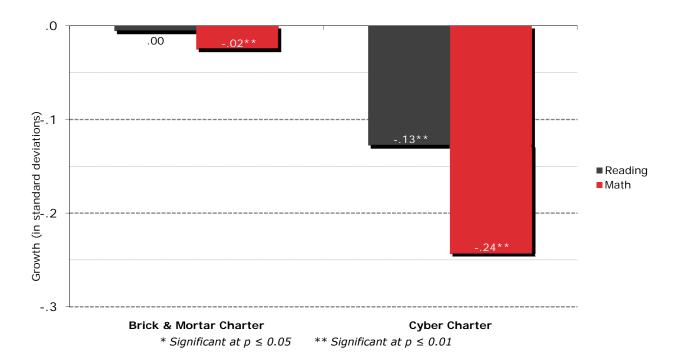
In reading, 30 of the 99 charter schools (30%) perform significantly better than traditional public schools, while 25 of the charter schools (25%) perform significantly better in math. Both of these results are

better than the national average proportion of better-performing charters (17%). Additionally, there were a handful of outstanding schools in each subject; five schools (5%) in reading and seven schools (7%) in math had average growth scores that were above 0.2 with two schools in math achieving above 0.5. However, their standout performance is mitigated by the 39 charter schools (39%) in Pennsylvania that perform at lower levels than traditional public schools in reading and the 46 charter schools (46%) that perform worse in math.

CHARTER SCHOOL IMPACT BY DELIVERY SYSTEM

Two types of charter schools are authorized in Pennsylvania: physical brick and mortar schools and cyber, or virtual, schools. The student populations at the two types of schools differ. The typical cyber charter student is white and ineligible for subsidized meals, while the typical brick and mortar charter student is black and receiving free or reduced-priced lunches. Furthermore, the starting score for cyber students is significantly higher than for brick and mortar charter students in both reading and math. Additionally, cyber students are more likely to be repeating a grade than brick and mortar charter students. The overall results separated by delivery system appear in Figure 3 below.

Figure 3: Average Learning Gains in Pennsylvania Brick & Mortar and Cyber Charter Schools Compared to Gains for VCR Students in Each Charter Schools' Feeder Schools



The learning gains for students in brick and mortar charter schools in Pennsylvania were not significantly different from their traditional public school counterparts in reading. Brick and mortar charter students learned significantly less on average than their counterparts in math. Cyber charter students have significantly smaller gains in reading and math than those of their traditional public school peers.

The results in Figure 3 represent the average learning gains for charter school students by delivery system. As with the overall results, knowing the distribution around the average for each delivery system provides a better understanding about individual school performance. In order to determine the distributions of performance for each delivery system, we first separated the schools and their VCRs into the two relevant groups: 1) brick and mortar charter students with their VCRs and 2) cyber charter students with their VCRs. We then tested the average experience in the VCR sample for students in each school within a delivery system; put another way, we compared each school's average effect to the average of all the comparison students in traditional schools for that delivery system. The results appear in Table 3 below along with the overall numbers that were reported in the previous section.

Table 3: Performance of Pennsylvania Charter Schools 2007-2010

Compared to Pennsylvania Average VCR Learning Gains by Delivery System

		Significantly Worse		Not Significant		Significantly Better	
Subject	Delivery System	Number	Percent	Number	Percent	Number	Percent
Reading	All Charters	39	39%	30	30%	30	30%
	Brick & Mortar	31	34%	28	31%	32	35%
	Cyber	8	100%	0	0%	0	0%
Math	All Charters	46	46%	28	28%	25	25%
	Brick & Mortar	38	42%	28	31%	25	27%
	Cyber	8	100%	0	0%	0	0%

In both reading and math, all 8 cyber schools perform significantly worse than their traditional public school counterparts. For brick and mortar schools in reading, 32 of the 91 schools (35%) perform significantly better than their traditional public schools, while 25 of the charter schools (27%) perform significantly better in math. In reading, 31 brick and mortar charter schools (34%) perform at lower levels than their traditional public schools, and 38 of them (42%) perform worse in math.

Due to the differences in the student composition at brick and mortar versus cyber charter schools, the effectiveness of the two types of schools for different subgroups of students is displayed in Table 4 below. The all-charter effect for each of these subgroups is also listed in this table for reference; these results will be discussed further in subsequent sections of this report. In Table 4, the performance of charter school students in the subgroups of interest are displayed relative to the average white student in traditional public schools who does not qualify for Free or Reduced Price Lunch subsidies, Special Education services or English Language Learner support and who did not repeat a grade.

Table 4: Performance of All Pennsylvania Charters, Brick & Mortar Charters, and Cyber Charter Schools Compared to Pennsylvania Average VCR Learning Gains

	Charter Reading Effect			Charter Math Effect		
Subgroup	All	Bricks	Cybers	All	Bricks	Cybers
Black	11**	12**	20**	12**	12**	30**
Hispanic	17**	18**	21**	18**	18**	30**
Free/Reduced	08**	07**	13**	06**	04**	11**
Special Ed	25**	26**	24**	15**	16**	15**
English Learners	11**	12**	24*	.03	.00	.08
Grade Repeaters	.07**	.14**	.11**	.05**	.15**	.13**

** Significant at p ≤ 0.01

In every subgroup with significant effects, cyber charter performance is lower than the brick and mortar performance. English Learner students at both types of charter schools have similar learning gains to fluent speakers in traditional public schools in math.

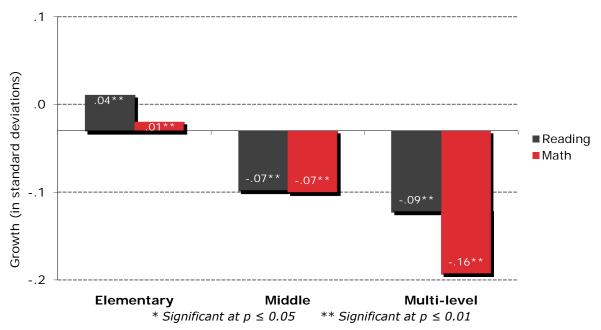
* Significant at $p \le 0.05$

CHARTER SCHOOL IMPACTS BY SCHOOL LEVEL

There are often differential impacts by school level, and many charter operators decide to focus on particular ages, while others seek to serve a broader range of students. Nationally, multi-level charter schools, those serving grade ranges larger than traditional elementary, middle or high schools, perform significantly worse than those that offer more traditional grade ranges.

This study examined the outcomes of students enrolled in elementary, middle and multi-level schools. The results appear in Figure 4. Growth scores could not be calculated for high schools, since testing data exists for only one grade level in that grade span (grade 11).

Figure 4: Average Learning Gains in Pennsylvania Elementary, Middle and Multi-Level Charter Schools Compared to Gains for VCR Students in Each Charter Schools' Feeder Schools



Students enrolled in elementary charter schools learn significantly more in both math and reading compared to their peers in traditional public schools. However, students enrolled in charter middle and multi-level schools learn significantly less in both reading and math compared to their counterparts in traditional public schools.

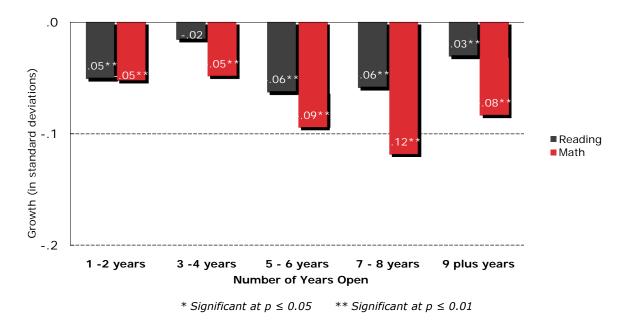
CHARTER SCHOOL IMPACT BY AGE OF SCHOOL AND STUDENTS' YEARS OF ENROLLMENT

To delve deeper into the charter school effects in Pennsylvania, we tested the charter school effects based on the number of years a charter was open during the time period of study. These results can be seen in Figure 5 below.

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Figure 5: Average Learning Gains by Age of Charter School

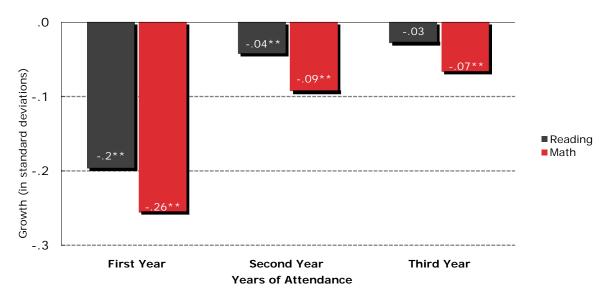
Compared to the Average Learning Gain for VCR students in Feeder Schools



The analysis shows that charter schools of all ages have negative and significant effects on learning gains in both reading and math for Pennsylvania charter school students as compared to their traditional public school peers. The sole exception is reading growth measured for students at charter schools open for 3-4 years, which was not significantly different than their traditional public school counterparts.

Regardless of the age of the charter school, student growth in charter schools may change over the years of enrollment. To test this, students were grouped by the number of consecutive years they were enrolled. In this scenario, the analysis is limited to the charter students who enrolled for the first time in the charter school between 2007-2008 and 2009-2010; although the number of students included will be smaller, it is the only way to make sure that the available test results align with the years of enrollment. This question examines whether the academic success of students who enroll in a charter school fluctuates as they continue their enrollment. The results appear in Figure 6.

Figure 6: Average Learning Gain by Students' Years of Enrollment in Charter Schools 2007 - 2010 Compared to the Average Learning Gain for VCR students in Feeder Schools



* Significant at $p \le 0.05$ ** Significant at $p \le 0.01$

The results suggest that new charter school students have a significant initial loss of learning compared to their counterparts in traditional public schools in reading and math. In the second year of attendance, a significant loss in learning compared to students in traditional public schools is again observed in both reading and math. Starting in the third year there is no significant difference in learning compared to their counterparts in traditional public schools in reading, and the loss in learning in math is a bit smaller than in the previous year. As only three growth periods were available, the trend in subsequent years of enrollment is not able to be determined.

CHARTER SCHOOL IMPACT BY RACE/ETHNICITY

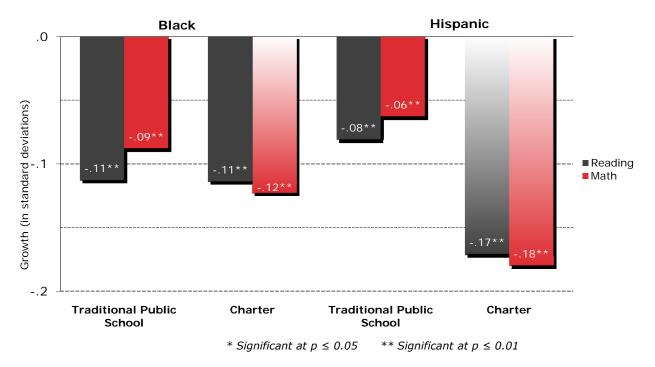
Attention in US public education to achievement differences by racial and ethnic backgrounds has increased in recent years. The effectiveness of charter schools across ethnic and racial dimensions is especially important since so many charter schools are focused on serving historically underserved minority students. The impact of charter schools on academic gains of Black and Hispanic students is presented in Figure 7, below.

The graph displays two distinct comparisons, described below:

• The first comparison displays the performance of traditional public students in the subgroups of interest relative to the average white student in traditional public schools who does not qualify for Free or Reduced Price Lunch subsidies, Special Education services or English Language Learner support and who did not repeat a grade. The values that appear in each vertical bar indicate the magnitude of difference from the comparison student, with stars indicating the level of statistical significance. Thus, if there is no difference in the learning gains, the bar would be missing entirely; if the learning of the student group in question is not as great as the comparison baseline, the bar is negative and if the learning gains exceed the comparison, the bar is positive.

 A second comparison tests whether the learning gains in the charter school student subgroup differs significantly from their peers in the same student subgroup in their feeder traditional public schools. Where the difference is significant, the charter school bar has gradient shading.

Figure 7: Average Learning Gains for Pennsylvania Black and Hispanic Students Compared to White Traditional Public School VCR Gains



Black students in both traditional public and charter schools have smaller gains in reading and math than those of white students in traditional public schools, the baseline of comparison. Black students in traditional public schools and charters have indistinguishable learning deficits in reading. However, Black students enrolled in charter schools show significantly worse performance in math compared to Black students in traditional public schools

Hispanic students in both traditional schools and charter schools have gains in math and reading that are smaller than those of white students in traditional public schools, the baseline of comparison. In both math and reading, Hispanic students in charter schools perform significantly worse than Hispanic students in traditional public schools.

CHARTER SCHOOL IMPACT ON STUDENTS IN POVERTY

Much of the motivation for developing charter schools aims at improving education outcomes for students who are in poverty. The enrollment profiles of charter schools across the country underscore this fact; in the Pennsylvania sample, 61 percent of the matched charter students are eligible for Free or Reduced Price Lunch, a proxy for low income households. Thus, the impact of charter schools on the learning of students in poverty is important both in terms of student outcomes and as a test of the commitment of charter school leaders and teachers to address the needs of the population in better

ways than in other settings. Figure 8 presents the results for Pennsylvania. In this graph, the comparison student is a student who pays full price for lunch, a proxy for not being in poverty.

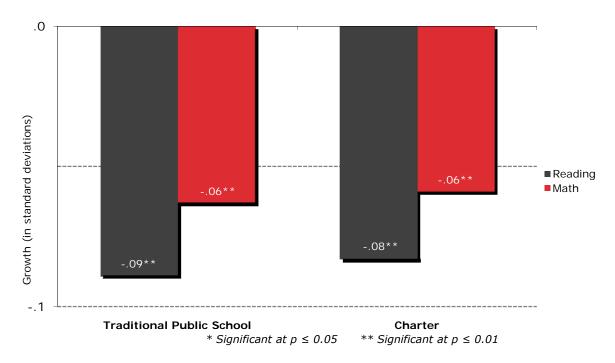


Figure 8: Average Learning Gains for Pennsylvania Students in Poverty Compared to Non-Poverty VCR Gains

In Pennsylvania, students in poverty perform significantly worse than their non-poverty peers. As shown in the figure above, students in poverty enrolled in charter schools receive no significant benefit or loss in reading or math compared to students in poverty in traditional public schools.

CHARTER SCHOOL IMPACT WITH SPECIAL EDUCATION STUDENTS

The demographic comparisons in the CREDO national charter school report released in 2009 indicated that across the charter sector, schools serve fewer Special Education students and in smaller proportions of their enrollment base than the traditional public schools. In some cases, this result is a deliberate and coordinated response with local districts, based on a balance of meeting the needs of the students and consideration of cost-effective strategies for doing so. In Pennsylvania, the proportion of matched charter school students who are Special Education is 13 percent compared to 15 percent of students in traditional public schools receiving Special Education services in Pennsylvania.

It is especially difficult to compare outcomes of Special Education students, regardless of where they enroll. The most serious problem is caused by small numbers and diverse typologies in use across states; the result is that there is tremendous variation when all categories are aggregated, a necessary and messy requirement. Of all the facets of the study, this one deserves the greatest degree of skepticism. With this cautionary note, the results are presented in Figure 9 below. The comparison

baseline is the typical academic growth of a traditional public school student who is not receiving Special Education services.

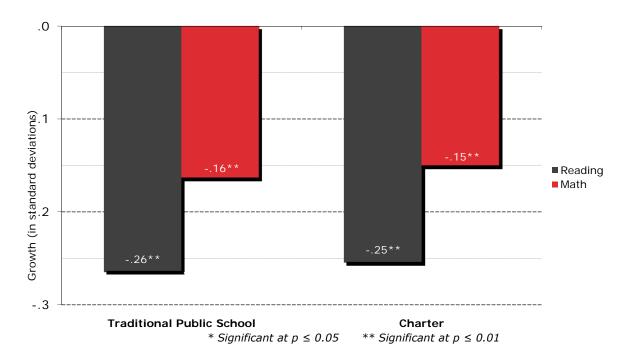


Figure 9: Average Learning Gains for Pennsylvania Special Education Students Compared with Non-Special Education VCR Gains

Special Education students enrolled in both traditional public and charter schools perform significantly worse than students not receiving special education services. In charter schools in Pennsylvania, Special Education students receive no significant benefit or loss from charter school attendance compared to their counterparts in traditional public schools in both reading and math.

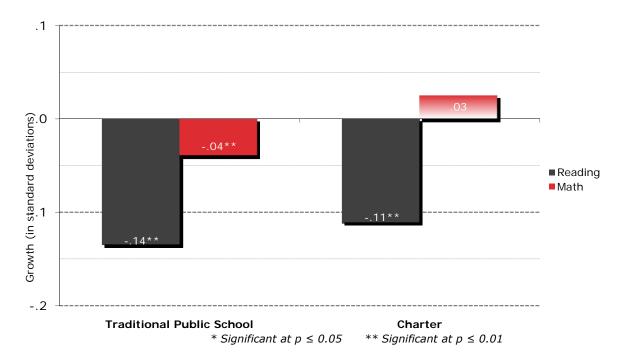
CHARTER SCHOOL IMPACT ON ENGLISH LANGUAGE LEARNERS

Students who enroll in school without sufficient English proficiency represent a growing share of public school students. Their success in school today will greatly influence their success in the world a decade from now. Since their performance as reflected by National Assessment of Education Progress has lagged well behind that of their English-proficient peers, their learning gains are a matter of increasing focus and concern.

The comparison of learning gains between charter school English Language Learners and their traditional school counterparts in Pennsylvania appears in Figure 10. The baseline comparison student in this analysis is the typical traditional public school student who is a native English speaker.

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Figure 10: Average Learning Gains for Pennsylvania English Language Learners Compared with Native English Speaker VCR Gains



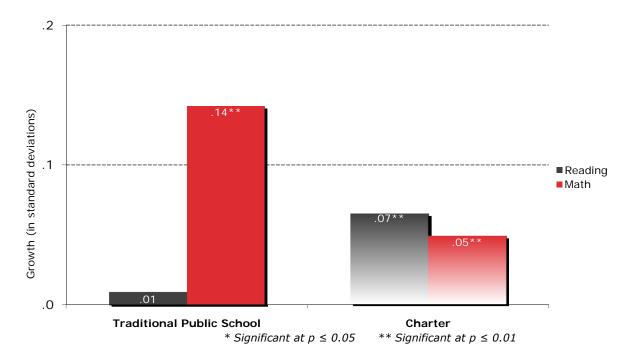
English Language Learner students in both traditional public schools and charter schools learn significantly less than native/fluent English speakers in reading. English Language Learners in traditional public schools learn significantly less in math than native/fluent English speakers, but those enrolled in charter schools have similar learning gains to fluent speakers in traditional public schools. English Language Learners in charter schools have similar gains in reading as their counterparts in traditional public schools and significantly better results in math.

CHARTER SCHOOL IMPACTS WITH GRADE-REPEATING STUDENTS

This study examined the outcomes of students who were retained. Often a highly charged topic, the underlying premise is that additional time in grade can help students by remediating deficits and shoring up grade-level competencies. Existing research on the outcomes of students who have been retained is limited.

Retention practices differ widely across the country and between the charter and traditional public school sectors. The fact that retained charter students have among the lowest match rates of any subgroup in our study suggests that charter schools are more likely to retain academically low-performing students. Regardless, in the observations of Pennsylvania students, sufficient numbers of matches were found to enable the learning gains following retention to be estimated. The results appear in Figure 11.

Figure 11: Average Learning Gains for Pennsylvania Grade-Repeating Students
Compared with Non-Grade-Repeating VCR Gains



Retained students perform better than non-retained students in both traditional public and charter schools in math. In reading, retained students at charter schools outperform non-retained traditional public school students, but there is no significant difference between retained and non-retained students in traditional public schools. Charter school students learn significantly less compared to their counterparts in traditional public schools in math, but they learn significantly more in reading.

CHARTER SCHOOL IMPACT BY STUDENT'S STARTING DECILE

A general tenet of charter schools is a commitment to the education and development of every child. Further, many charter schools, including several in Pennsylvania, have as part of their mission a specific emphasis on students who have not thrived academically in traditional public schools and whose early performance is well below average. The performance of charter schools was examined to see if they produced equivalent results across the spectrum of student starting points and in relation to the results observed for equivalent students in traditional public schools.

To do this, students were grouped into deciles based on their baseline test scores in reading and math on Pennsylvania's achievement tests. The average growth of student achievement in each decile was then computed and compared. The results appear in Figures 12.a and 12.b below.

Figure 12.a: Impact by Students' Starting Decile - Reading

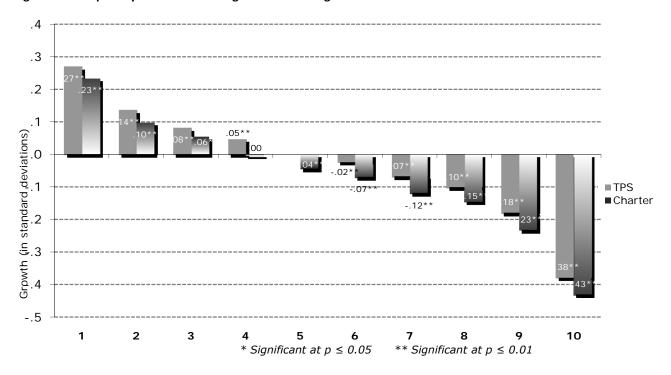
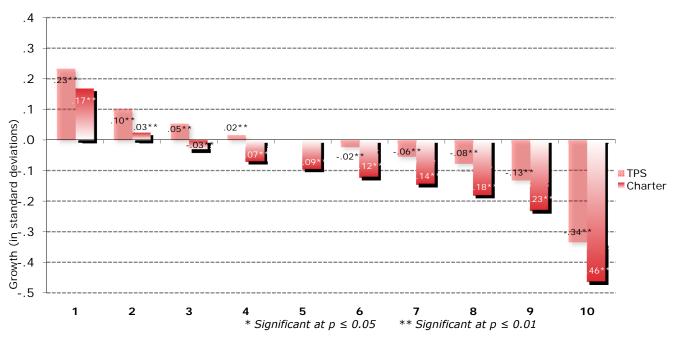


Figure 12.b: Impact by Students' Starting Decile - Math



Both figures demonstrate the expected "S"-shaped curve to the results. The overall curve reflects the typical pattern of larger learning gains for students with lower prior scores and larger learning losses for students with higher starting scores, a phenomenon known as "regression to the mean." Here, the

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relative magnitudes are important: Do charter schools produce relatively better growth results than traditional public schools? If so, the charter curve would have larger gains on the low end and smaller losses on the high end of the distribution.

For students in Pennsylvania, Figures 12.a and 12.b show that charter schools do worse than traditional public schools in each decile. The effect of charter school attendance on growth results is positive across the first two deciles in math and is positive across the first three deciles in reading.

SUMMARY OF FINDINGS

This report covers academic achievement growth at charter schools in Pennsylvania over a four-year period. Overall, charter school performance in Pennsylvania lagged in growth compared to traditional public schools. Looking at the distribution of school performance, 60% of the charter schools performed with similar or better success than the traditional public schools in reading and 53% of charter schools performed with similar or better success in math compared to traditional public schools. Performance at cyber charter schools was substantially lower than the performance at brick and mortar charters with 100% of cyber charters performing significantly worse than their traditional public school counterparts in both reading and math. Elementary school students enrolled in charter schools outperformed their peers in traditional public schools in both math and reading, while those enrolled in middle and multilevel charter schools performed worse in both subjects than their peers at traditional public schools. Charter schools of all ages in Pennsylvania on average perform worse than traditional public schools, and charter school students grow at lower rates compared to their traditional public school peers in their first 3 years in charter schools, although the gap shrinks considerably in math and disappears entirely in reading by the third year of attendance.

Hispanic students enrolled in charter schools perform significantly worse than their peers in traditional public schools in both reading and math, while Black students in charter schools perform significantly worse in math than Black students in traditional public schools but similarly in reading growth. Charter schools produced similar performance to traditional public schools in math and reading for students in poverty and for those with learning disabilities. Retained students in charter schools performed better than their peers at traditional public schools in reading but worse in math.

Ultimately, the story of charter schools in Pennsylvania should not be told using simple averages, as the significant variation in the distribution of charter school performance suggests. As is the case in many states across the country, a renewed focus on quality by the charter sector and among charter authorizers will help to ensure that the excellent performance provided by a significant proportion of the charter sector is emulated and reproduced, not mitigated by the poor performance of others. Without a vigorous focus on quality, the charter sector as a whole is put at risk by those schools that consistently underperform compared to their traditional public school peers.

A summary of the findings can be found in Table 5, below.

Table 5: Summary of Statistically Significant Findings for Pennsylvania Charter Schools

Compared to the Average Learning Gain for VCR students in Feeder Schools

	Reading	Math
Pennsylvania Charter Students	Negative	Negative
Brick and Mortar Charters		Negative
Cyber Charters	Negative	Negative
Elementary Charter Schools	Positive	Positive
Middle Charter Schools	Negative	Negative
Multi-Level Charter Schools	Negative	Negative
Charter Schools Age 1 – 2 Years	Negative	Negative
Charter Schools Age 3 – 4 Years		Negative
Charter Schools Age 5 – 6 Years	Negative	Negative
Charter Schools Age 7 – 8 Years	Negative	Negative
Charter Schools Age 9 or More Years	Negative	Negative
First Year Enrolled in Charter School	Negative	Negative
Second Year Enrolled in Charter School	Negative	Negative
Third Year Enrolled in Charter School		Negative
Black Charter School Students		Negative
Hispanic Charter School Students	Negative	Negative
Free/Reduced Lunch Charter School Students		
Special Education Charter School Students		
English Language Learner Charter School Students		Positive
Retained Charter School Students	Positive	Negative

POLICY CONSIDERATIONS

While the news in this report is sobering, previous work in other states has shown that similar populations of students can have more positive outcomes at charter schools than are seen here. The results of the extremely high-performing individual charter schools indicate that there are already some strong examples of quality charter schooling in Pennsylvania. The challenge for policymakers is to build on that success to drive quality throughout the sector. Charter school authorizing is one of the policy levers that can affect the overall quality of charter school options that are available for families. A systematic, thorough and well-designed charter authorizing process increases the likelihood that an

applicant's desire to help students is matched by a sufficient level of competence and planning to actually be able to do so. A regular review and reauthorization process could also help maintain a high quality charter sector, especially if reviews focus seriously on both fiscal and academic performance benchmarks.² Instituting such reforms could help to ensure that charters are granted to operators with the greatest likelihood to excel and that all charter schools are held accountable to high standards of performance.

² Further discussion of this topic can be found in publications such as the frameworks for academic and operational quality released by the Building Charter School Quality initiative and the National Association of Charter School Authorizer's "Principles and Standards for Quality Charter School Authorizers."