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Alternative Strategies for Identifying High-Performing Charter Schools in Texas

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Introduction

The Obama administration's recurring policy emphasis for reforming the No Child Left Behind Act of 2001 (NCLB) calls for the creation or expansion of high-performing charter schools.[1] Similarly, the US Senate's Elementary and Secondary Education Reauthorization Act of 2011 supports "the creation, expansion, and replication of high-performing charter schools."[2(p553)] As the name suggests, the US House of Representatives' Empowering Parents through Quality Charter Schools Act also specifically focuses on supporting high-quality charter schools.[3] This recurring policy emphasis on high-performing charter schools begs the obvious question: how do you identify a high-performing charter school.

The accurate identification of high-performing charter schools is a crucially important policy question. We cannot rely on charter schools to serve as laboratories for educational innovation if we cannot agree on a measure of success.

More importantly, charter schools often serve student populations that are not well served by traditional public schools. Many charter school students are economically and/or academically disadvantaged. An evaluation strategy that incorrectly identifies charter school performance could have important impacts on these vulnerable student populations. If low-performing schools are mislabeled and allowed to persist or encouraged to expand, then students may be harmed directly. If high-performing schools are driven from the market by misinformation, then students will lose access to programs and services that can make a difference in their lives.

Most of the scholarly analysis to date has focused on comparing the performance of students in charter schools to that of similar students in traditional public schools. This analysis seeks to contribute to the literature and current policy debate by describing strategies for identifying high-performing charter schools by comparing charter schools with one another. We begin by describing salient characteristics of Texas charter schools. We follow that discussion with a look at how other researchers across the country have compared charter school effectiveness with traditional public school effectiveness and how many of these studies have not addressed the variation in quality among charter schools. We then examine existing strategies for measuring student academic achievement in Texas charter schools, the overall range in charter school quality that exists, and the cost effectiveness of charter schools. We round out our examination by presenting practical recommendations for identifying high-performing charter schools in Texas.

Open-Enrollment Charter Schools in Texas

There are 2 distinct classes of charter schools currently operating in Texas—district charter campuses and open-enrollment (OE) charter schools.[i] District charter campuses are wholly-owned subsidiaries of traditional public school districts. They draw their enrollments and receive their funding from the parent district.[5] In contrast, OE charter schools are completely independent local education agencies. Although legally designated as schools, they function as school districts. This analysis focuses on OE charter schools, which for clarity will be referred to as OE charter districts.

By Texas law, colleges, universities, nonprofit corporations, and governmental entities can establish OE charter districts, but no more than 215 charters can be granted to entities other than public institutions of higher education.[6] Like traditional public school districts, OE charter districts are monitored and accredited under the statewide testing and accountability system. They may operate multiple campuses, and they are not allowed to charge tuition. Unlike traditional public school districts, OE charter districts may operate in more than 1 metropolitan area, serve only a subset of grades, place limits on the number of children allowed to enroll, and require students to submit applications for placement.[5]

According to the Texas Education Agency (TEA), in 2010-11 there were 199 OE charter districts operating 482 campuses in Texas.[7] Those 482 campuses served 133,697 students—or nearly 3% of the public school students in Texas.[ii]

Most OE charter districts were relatively small in 2010-11. Half of the OE charter districts had fewer than 400 students, and 95% of the OE charter districts had fewer than 2,000 students. Only 2 OE charter districts—IDEA Public Schools and Responsive Education Solutions—had more than 5,000 students.

More than half of the OE charter districts (108 out of 199) operated only a single campus during the 2010-11 school year, and most (164 out of 199) operated no more than 3 campuses. With 36 campuses, the largest OE charter district, Responsive Education Solutions, operated more campuses than any other OE charter district. Other OE charter districts operating a relatively large number of campuses in Texas included IDEA Public Schools (with 16 campuses in 2010-11), the University of Texas-University Charter (with 15 campuses), KIPP Inc.

[i]State law also allows entire school districts to convert into home-rule school district charter schools.[4] As of 2012, no home-rule charters have been adopted.

[ii]Unless otherwise noted, descriptive data on Texas's OE charter schools come from the TEA's Academic Excellence Indicator System (AEIS).[7]

(which operated 1 OE charter district with 14 campuses and another with 5 campuses), and Shekinah Radiance Academy (with 9 campuses).

KIPP, Inc., was not the only charter-holding company to operate more than 1 OE charter district in Texas.[iii] There were 19 charter holders operating 2 or more OE charter districts during the 2010-11 school year. Uplift Education and America Can! each operated 5 OE charter districts in Texas during 2010-11, while Cosmos Foundation, Inc., operated 11 OE charter districts (including the Harmony Science Academy Laredo and the Harmony Science Academy Waco). If the Cosmos Foundation charter-holding company were considered a single OE charter district, it would have been the largest in the state, with 33 campuses and a total enrollment of 16,721.

The Characteristics of OE Charter Campuses

The 482 OE charter campuses serve a variety of grade levels. Table 1 provides information about the composition of OE charter campuses in 2010-11. As the table illustrates, slightly more than one-third of the OE charter campuses in Texas were classified by TEA as elementary schools. In contrast, more than half of the traditional public school campuses were elementary schools. OE charter campuses were much more likely than traditional public school campuses to serve at least 1 high school grade (9-12) and at least o1ne elementary grade (PK-6) and therefore to have been classified as multi-level schools.

As the table illustrates, OE charter campuses were disproportionately classified as alternative education campuses (AECs). AECs are campuses that 1) are dedicated to serving students at risk of dropping out of school, 2) are eligible to receive an alternative education accountability (AEA) rating, and 3) register annually for evaluation under AEA procedures.[5] There are 2 types of AECs—AECs of Choice and Residential AECs. AECs of Choice are day schools whereas Residential AECs serve students 24/7. Eighteen of the 21 AECs that are elementary schools are OE charter campuses. More than half of the residential AECs in Texas (47 out of 89) are OE charter campuses, and nearly one-tenth (47 out of 482) of the OE charter campuses are residential AECs.

[iii] KIPP, Inc., was not the only KIPP-affiliated charter holder in Texas. KIPP Austin Public Schools, Inc., KIPP Dallas Fort Worth, Inc., and KIPP San Antonio, Inc., also each operated 1 OE charter district during 2010-11.[8]

Table 1. The number of OE charter school campuses by grade level and type (2010-11)

	Standard Campuses	AEC of Choice	Residential AEC
OE charter districts			
Elementary schools	167	15	3
Middle schools	40	2	2
High schools	29	72	15
Multi-level schools	72	38	27
Total	308	127	47
Traditional public school districts			
Elementary schools	4,354	2	1
Middle schools	1,602	13	0
High schools	1,320	188	23
Multi-level schools	300	13	18
Total	7,576	216	42

Notes: Non-charter campuses with less than 5 students have been excluded. Multi-level schools serve at least 1 high school grade (9-12) and at least 1 elementary grade (PK-6). Sources: Academic Excellence Indicator System (AEIS)[7] and the Texas Education Directory.[9]

OE charter campuses were also disproportionately located in metropolitan areas. Only 28 of the 482 OE charter campuses were located outside of a metropolitan area, and 9 of those were residential AECs. More than half of the OE charter campuses were located in 3 metropolitan areas—Houston (118 campuses), Dallas (100 campuses), and San Antonio (60 campuses).

The Characteristics of OE Charter School Students

As illustrated in Table 2, the students who attended nonresidential OE charter campuses during 2010-11 were systematically different from those who did not. OE charter campuses served a student population that was disproportionately nonwhite and low income, with a significantly smaller share of special education students or gifted and talented students. OE charter districts also served a significantly lower percentage of career and technology students than did traditional public school districts.

Among nonresidential campuses, there was no significant difference between OE charter districts and traditional public school districts with respect to the share of students identified as at risk of

dropping out of school. Students are identified as "at risk" based on statutory criteria, including poor performance on standardized tests, a history of being held back in school, limited English proficiency, pregnancy, homelessness, placement in an alternative education program, or residence in a residential placement facility.[5] This pattern is somewhat surprising given the disproportionate number of nonresidential OE charter campuses that are AECs of Choice and may indicate that OE charter campuses are more likely than traditional public school campuses to seek alternative education status.

Table 2. Student demographics by charter status for nonresidential campuses (2010-11)

	OE Charter Districts		TPS Districts
Percent of students who were:			
Non-Hispanic white	16.80%	*	31.58%
African American	23.73%	*	12.63%
Hispanic	53.64%		50.16%
Economically disadvantaged	70.16%	*	58.91%
At risk	49.62%		46.16%
Limited English proficient	16.55%		16.93%
Special education program	6.38%	*	8.84%
Gifted education program	1.69%	*	7.91%
Bilingual education program	15.89%		16.24%
Career & technology program	7.60%	*	21.39%
Number of campuses	435		7,792
Number of students	129,126		4,776,408

Notes: Pupil-weighted averages from campus-level data. Campuses with fewer than 5 students have been excluded. The asterisk indicates a difference between OE charter school districts and traditional public school (TPS) districts that is statistically significant at the 5% level, adjusting for clustering of the data by district.

Sources: Academic Excellence Indicator System (AEIS)[7] and authors' calculations.

The Characteristics of OE Charter School Teachers

Teachers in OE charter districts were also systematically different from those in traditional public school districts. Table 3 compares the demographics of teachers who worked at nonresidential campuses in OE charter districts and traditional public school districts in Texas. As the table reveals, OE charter districts had a larger percentage of African American, male, and beginning teachers than did traditional public school districts. They were also statistically less likely to have non-Hispanic white teachers and teachers with extensive teaching experience. There was no statistically significant difference between OE charter and traditional public school districts in terms of percentage of Hispanic teachers. The average salary at nonresidential traditional public school campuses was significantly higher (roughly $7,800 more) than the average salary at nonresidential OE charter campuses. Finally, the number of students per FTE teacher was significantly higher at OE charter districts than it was at traditional public school districts.

Table 3. Teacher demographics by charter status for nonresidential campuses (2010-11)

	OE Charter Districts		TPS Districts
Percent non-Hispanic white	49.74%	*	64.27%
Percent African American	20.60%	*	8.94%
Percent Hispanic	23.59%		23.76%
Percent male	26.55%	*	23.05%
Percent beginning teachers	26.43%	*	5.52%
Percent highly experienced	24.75%	*	64.92%
Average salary	$40,970	*	$48,813
Number of students per FTE teacher	15.79	*	14.77
Number of campuses	435		7,792
Number of students	129,126		4,776,408
Number of FTE teachers	8,180		323,376

Notes: Teacher-weighted averages from campus-level data. Campuses with fewer than 5 students have been excluded. The asterisk indicates a difference between OE charter schools and traditional public school (TPS) districts that is statistically significant at the 5% level, adjusted for clustering of the data by district.

Sources: Academic Excellence Indicator System (AEIS)[7] and authors' calculations.

The Characteristics of OE Charter School Spending

Spending patterns were also very different between OE charter and traditional public school districts (see Table 4).[iv] Total operating expenditures per pupil were significantly higher at OE charter districts (which spent $9,155 per pupil) than at traditional public school districts (which spent $8,628 per pupil). To a certain extent, higher average expenditure per pupil resulted from a general lack of economies of scale among charter schools. However, there were also important differences in the mix of expenditures between district types. On average, OE charter districts spent significantly more than traditional public school districts on nonpersonnel items like rent and significantly less than traditional public school districts on instructional and noninstructional personnel.

Table 4. Current operating expenditures per pupil by object for OE charter and traditional public school districts, 2010-11

	OE Charter Districts		TPS Districts
Expenditures by object			
Personnel	$6,864	*	$7,394
Instructional payroll	$3,750	*	$4,640
Noninstructional payroll	$1,876	*	$2,347
Contracted instructional services	$305	*	$87
Contracted noninstructional services	$933	*	$321
Rent	$524	*	$36
Utilities	$259		$292
Other operating	$1,508	*	$906
Total current operating expenditures	$9,155	*	$8,628
Number of districts	192		1,029
Number of students	131,918		4,778,688

Notes: This table presents pupil-weighted averages for all districts with actual financial data in the Public Education Information Management System (PEIMS). The asterisk indicates a difference between OE charter and traditional public school (TPS) districts that is statistically significant at the 5% level.
Source: Public Education Information Management System (PEIMS).[10]

As discussed in Taylor et al,[5] spending on instructional personnel tends to be lower at OE charter districts for 2 reasons. First, OE charter

[iv]Data on charter school spending come from the TEA's Public Education Information Management System (PEIMS).[10]

districts have fewer full-time-equivalent (FTE) teachers per pupil than traditional public school districts of comparable size. Second, OE charter districts pay lower salaries, on average, than do traditional public school districts. Average teacher salaries are lower not only because OE charter districts tend to hire less experienced teachers than traditional public school districts but also because OE charter districts pay a smaller premium for additional years of teacher experience.

Strategies for Measuring Charter School Performance

Most studies have examined the performance of charter schools by comparing them with traditional public school districts. Such comparisons are inherently complicated because families *choose* whether or not to send students to a charter school. If there is something systematically different between students who stay in traditional public school districts and those who move to a charter school, then any differences in student performance between charter and noncharter schools could be attributable to the difference in students rather than the difference in schools.

To overcome these issues of selection bias, researchers have used 3 basic strategies: 1) comparing students who were admitted to charter schools based on a random lottery to those who applied but were not admitted, 2) comparing students in charter schools with their own expected achievement based on previous or subsequent experience in traditional public school districts, and 3) matching students in charter schools with students in traditional public school districts based on demographic characteristics and comparing their achievement.[11]

Lottery-Based Studies of Charter Effectiveness

When implemented properly, lottery-based studies of charter school effectiveness have the strongest research design.[v] They also tend to find the strongest evidence in favor of charter schools. For example, recent work comparing charter schools with traditional public school campuses in Boston found large and statistically significant achievement gains for charter school students at the nonelementary level.[14] Analysis of the KIPP charter school in Lynn, Massachusetts, yielded similar results with middle school students.[15] Hoxby and a series of co-authors have generally found

[v]Lottery-based studies can be characterized as randomized controlled trials, which are considered the gold standard of program analysis.[11] However, many challenges arise when implementing a lottery study. Critics have questioned the randomization of students and the calculation of the students' cumulative gains in some lottery analyses of charter school effectiveness.[12,13]

positive results for "lotteried-in" students—those who were chosen by lottery to attend the charter schools—in Chicago and New York.[16-18] Their most recent report[18] on New York City charter schools indicated that students who attended a charter school from kindergarten through eighth grade closed 86% of the "Scarsdale-Harlem achievement gap"[vi] in math and 66% of the gap in English. In comparison, the lotteried-out students generally stayed on grade level but did not make much headway in closing the achievement gap. Hoxby et al also found that, for every year lotteried-in students attended a charter school, they performed 3 points higher on the New York Regents exams than lotteried-out students.[18] In other words, students who attended charter schools for 3 years performed 9 points better on the exams than students who had remained in traditional public schools, on average. Gleason et al[19] examined 36 charter middle schools in 15 states and found that, among low-income students, those who were lotteried in significantly outperformed those who were lotteried out in math over a 2-year period. However, they found the opposite result for students who were not low income: the lotteried in significantly underperformed the lotteried out.

By design, lottery-based analyses are necessarily limited to evaluations of charter schools that are oversubscribed. Charter schools without a waiting list and charter schools that do not use lotteries to allocate seats are not the subjects of such research. Furthermore, only schools with comparatively long waiting lists would have enough lotteried-out students to conduct a credible analysis. As Zimmer and Buddin[20] put it, "one would expect schools with wait lists to be the best schools, and it would be surprising if they had the same results as other charter schools."(p331) In other words, the strong findings from the lottery-based studies may not generalize to more typical charter school situations.

Within-Student Studies of Charter Effectiveness

A much larger number of studies has been based on the second strategy, in which students' actual achievement in charter schools is compared to their anticipated achievement gains had they remained in traditional public school districts using individual student fixed effects.[vii] This method identifies charter school effectiveness as the change in student performance associated with a change in educational setting (either

[vi]The researchers defined this gap as the achievement differential between students in Harlem, where many of the charter schools are located, and Scarsdale, a wealthy suburb of New York City.

[vii]For a more complete survey of the literature, see Gleason et al,[19] Zimmer et al,[21] or Betts and Hill.[11]

switching from a charter school to a traditional public school district or vice versa). Students who spend their entire academic careers in only 1 type of setting (either charter schools or traditional public school districts) may be included in the analysis, but their experiences do not contribute to the measure of charter school effectiveness.

Findings from within-student studies of charter school effectiveness have been decidedly mixed. Solmon and Goldschmidt[22] examined charter school students' achievement over a 3-year period early in Arizona's charter school movement and found that, overall, charter school students performed roughly 3 percentage points better than traditional public school students on the standardized reading test. Imberman[23] found little evidence that charter schools that were part of a large southwestern traditional public school district had any effect on student academic achievement in that district. Zimmer et al[21] analyzed the impact of charter schools on student achievement in 7 states. They found evidence of statistically significant and positive effects in Denver and Milwaukee, insignificant effects in Philadelphia and San Diego, and statistically significant and negative effects on student performance in Texas, Ohio, and Chicago.

Booker et al[24] focused specifically on Texas. Like Zimmer et al,[21] they found that changing schools is disruptive, even if the students are merely progressing from elementary to middle school, and that students who moved from a traditional public school to a charter school experienced a larger drop in achievement than students changing schools within a single traditional public school district. However, they also found that any negative charter school effects were temporary. After 3 years in a charter school, students were performing as well as their traditional public school counterparts.

There is some evidence from within-student studies that charter schools become more effective after they have been operating for a few years. Hanushek et al[25] and Sass[26] observed that brand-new charter schools in Texas and Florida that initially appeared to struggle recovered by the fourth or fifth year of operation, while studies in Texas[24] and North Carolina[27] have suggested that charter schools catch up to traditional public school campuses in year 6. Zimmer et al[21] found that student performance tended to improve as charter schools matured, although it remained significantly negative in Ohio and Texas during the charter schools' third year of operation. On the other hand, Bettinger[28] and Bifulco and Ladd[29] found that charter schools had not caught up to their traditional public school counterparts in performance by the third or fifth year, respectively.

Between-Students Studies of Charter Effectiveness

The third strategy for minimizing student selection bias uses a rich set of student demographics to control for differences between charter and noncharter students. Betts and Hill[11] pointed out that the third method is the least desirable as it compares students who were motivated to apply to and attend a charter school to those who were not motivated to move to a charter school. Fundamentally, these students may be very different on important, unobservable characteristics, and therefore, conclusions drawn from such a comparison must be interpreted with much care.

The use of propensity score matching (PSM) addresses many of these concerns by identifying schools or students with similar characteristics (a more apples-to-apples comparison) and then grouping and comparing them. PSM is a statistical strategy used to construct an experimental control group when random assignment is not possible. Fortson et al[30] replicated the lottery-based analysis by Gleason et al[19] using PSM and found that student-level PSM yielded results that were statistically equivalent to those found through the lottery-based analysis.

The Texas Center for Education Research (TCER) used PSM at the student level to explore the performance of new charter schools in Texas.[31] It found that the effect of charter schools on students' academic achievement, as compared to the achievement of matched students in traditional public school districts was inconclusive. The TCER study also found no evidence that a charter school's length of service helped to explain its students' performance.[31]

Hoxby[32] used PSM at the campus level to evaluate charter school performance in 20 states. She evaluated the effectiveness of charter schools by comparing the standardized test proficiency levels of primary charter school students to the proficiency levels of students in the same grade at schools the charter students would have otherwise attended. Hoxby found that, overall, charter school students were more likely to score at the proficient level on the state's reading and math exams.[viii] However, her analysis also indicated that charter school students in Texas performed no better than traditional public school students on the reading exam and were 8.3% less likely to score at the proficient level on the math test.[32]

More recently, Taylor et al[5] used PSM at the campus level to evaluate charter schools in Texas. They found mixed results, with OE

[viii]Critics argued that this study failed to provide sufficient controls for race and socioeconomic status. Their analysis indicated that when these characteristics were taken into account, the measured achievement in charter schools disappeared.[33]

charter campuses outperforming matched traditional public school campuses on some measures of student performance and underperforming them on others.

Virtual control records (VCR) is a method that adds another layer to PSM. It employs not only PSM but also a synthetic matching technique to pair students in charter schools with students in the traditional public school districts they would otherwise have attended based on a number of student characteristics. Rather than limiting the study to students who move between traditional public school districts and charter schools, as student fixed effects requires, VCR allows for studies to be conducted on students who switch schools *and* students who only attend charter schools. Davis and Raymond[34] found mixed results for charter schools in 16 states and the District of Columbia when comparing VCR and student fixed effects. However, they suggested that since VCR has the flexibility to include a larger number of charter school students in its model, results using this method have the potential to be more generalizable than results using student fixed effects. The Center for Research on Education Outcomes (CREDO)[35] used a VCR design to evaluate the performance of more than 70% of US students in charter schools. As with the literature overall, the aggregated results were inconclusive.[ix] CREDO found that student achievement in charter schools appears to dip the first year after the students enter the schools but may produce positive and statistically significant gains as soon as the students' second year. However, Texas was among the states that demonstrated lower than average student gains in the CREDO analysis.[35]

Comparing Performance Among Charter Schools

One striking conclusion can be drawn from the literature on charter school quality: there is no evidence that charter schools outperform traditional public schools in Texas. Table 5 summarizes the evidence from the studies using Texas data. As the table illustrates, none of the Texas-based studies found evidence that OE charter schools systematically outperformed traditional public schools. At best, the results were mixed. At worst, the 3 studies that compared charter schools in Texas with charter schools in other states (CREDO,[35] Hoxby,[32] and Zimmer et al[21]) found significant and negative results for Texas charter schools.

[ix] Hoxby[36] argues that the CREDO methodology has a negative bias in its estimates of how charter schools affect achievement because the methodology does not correct for differences in measurement error between the charter school students and their synthetic control groups.

Table 5. Summarizing the evidence on Texas charter schools

Study	Methodology	Findings
Booker et al.[24]	Within students	Negative short term No effect long term
Hanushek et al.[25]	Within students	Negative short term No effect long term
Zimmer et al.[21]	Within students	Negative
CREDO[35]	VCR	Negative
Hoxby[32]	PSM	Negative
Taylor et al.[5]	PSM	Mixed
TCER[31]	PSM	No effect

However, these findings should not be construed to mean that there are no high-performing charter schools in Texas. Most of the literature focuses on estimating the average effect of charter schools in general, not the specific effect of individual schools. Even when the average performance is low to middling, there may still be a respectable number of high-performing charter schools. Most research methodologies simply are not designed to detect them.

Furthermore, even when the analysis does evaluate specific schools, as in the CREDO report, the research is designed to measure success in relative terms. Charter schools that outperform similarly situated, but low-performing, traditional public schools lead to positive charter school effects, even if the charter schools are mediocre in an absolute sense. Likewise, charter schools that are compared to high-performing traditional public schools could appear to have no effect or to be low performing due to the stiff competition from their comparison schools. Thus, there are 2 possible scenarios: 1) the poor showing of Texas charter schools accurately reflects their position, on average, or 2) the poor showing of Texas charter schools reflects a relatively stronger performance by Texas traditional public schools, on average. In either scenario, we are led to the same conclusion: analyses like that conducted by CREDO[35] only provide information about how charter schools perform in light of the performance of the traditional public school districts the students otherwise would have attended. In other words, they tell us nothing about how charter schools compare to one another.

When it comes to identifying high-performing charter schools for policy purposes, comparing charter schools to each other is a desirable strategy for a number of reasons. Since all of the children who go to charter schools have chosen to attend them, the concern about selection

bias is greatly reduced. Much like lottery-based studies in which lotteried-in and lotteried-out students are compared to each other, children who attend charter schools have demonstrated a common interest in educational attainment. Comparing charter schools to one another also allows all charter schools to be included in the analysis and not just schools with extensive waiting lists. Additionally, researchers are able to use methods that are more transparent than some of the strategies that have been used in previous research. Finally, the quality of individual charter schools can be evaluated rather than examining charter schools simply in comparison to prespecified groups of traditional public schools.

Measuring the Performance of OE Charter Schools in Texas

There are many possible indicators that could be used to determine whether or not a charter school is "high performing." Below, we review the usual suspects—existing measures of student performance that could be used by regulators and policymakers to identify high-performing charter schools in Texas.

Performance and the Texas Accountability System

In Texas, all standard campuses were rated Exemplary, Recognized, Academically Acceptable, or Academically Unacceptable based on Texas Assessment of Knowledge and Skills (TAKS) passing rates, English language learner (ELL) progress rates, completion rates, and annual dropout rates. AECs of Choice are rated either Academically Acceptable or Academically Unacceptable based on a TAKS progress measure, a modified completion rate, and the annual dropout rate. Campuses with no students enrolled in tested grades (such as early elementary campuses) are paired with other campuses in the same district for evaluation purposes. Campuses with no students enrolled in grades higher than kindergarten, Juvenile Justice Alternative Education Program (JJAEP) campuses, and Disciplinary Alternative Education Program (DAEP) campuses, as well as campuses with very small numbers of usable test scores and campuses where TEA has concerns about data quality, are not rated.

The TEA accountability ratings are based not only on average student performance for all students but also on the performance of the lowest-performing student subgroup. The 4 subgroups are African American, Hispanic, non-Hispanic white, and economically disadvantaged students. Any subgroup with at least 50 students is evaluated separately, as is any subgroup with at least 30 students that also represents at least 10% of campus enrollment.

To receive a rating of Exemplary in 2010-11, 90% of the students as a whole and 90% of the students in each evaluated subgroup must have passed the TAKS in reading/ELA, writing, social studies, mathematics, and science. Furthermore, 25% of the students as a whole and 25% of the economically disadvantaged subgroup must have passed the reading/ELA and mathematics tests at the commended performance level. The campus must have also satisfied rating criteria with respect to the ELL progress measure, completion rates, and annual dropout rates.

To receive a rating of Academically Acceptable, 70% of the students as a whole and in each evaluated subgroup must have passed the TAKS in reading/ELA, writing, and social studies, 65% must have passed in mathematics, and 60% must have passed in science. Campuses that were below the TAKS performance threshold, but were making required improvement (i.e., their passing rate was rising fast enough to meet the standard in 2 years) were rated as Academically Acceptable. There were no necessary performance levels with respect to the ELL progress measure or the percentage of students passing TAKS at the commended performance level, but the campus must also have satisfied rating criteria with respect to completion rates and annual dropout rates.

The highest rating possible for an AEC is Academically Acceptable. To have been assigned this rating in 2010-11, either 55% of the TAKS tests taken by all students and by each evaluated subgroup must have met the passing standard (regardless of the subject matter of the test) or else the campus must have been making required improvement. The campus must have also satisfied rating criteria with respect to the ELL progress measure, modified completion rates, and annual dropout rates.

Table 6 presents state accountability ratings for nonresidential campuses. As the table illustrates, 12.9% of OE charter campuses were rated Exemplary in 2010–11. Meanwhile, 11.7% of OE charter campuses were rated Academically Unacceptable.

Table 6. Accountability ratings for nonresidential OE charter campuses by accountability procedures (2010-11)

Accountability Rating	OE Charter Campuses
Exemplary	56 (12.9%)
Recognized	94 (21.6%)
Academically acceptable	209 (48.0%)
AEC of Choice	112 (25.8%)
Standard campus	97 (22.3%)
Academically unacceptable	51 (11.7%)
AEC of Choice	13 (3.0%)
Standard campus	38 (8.7%)
Not rated	25 (5.7%)
AEC of Choice	2 (0.5%)
Standard campus	23 (5.3%)
Total	435 (100%)

Note: Only standard campuses are eligible for the Exemplary or Recognized rating.
Source: Academic Excellence Indicator System (AEIS).[7]

Performance and No Child Left Behind

Under NCLB, all campuses are also assigned an accountability rating based on their Adequate Yearly Progress (AYP). Schools are classified as meeting AYP standards if they are making sufficient progress toward the goal of 100% proficiency on TAKS for each accountability subgroup (i.e., for African American, Hispanic, white, economically disadvantaged, special education, and limited English proficiency students) and toward designated goals for graduation and attendance rates. Campuses that are not making sufficient progress are said to have missed AYP. A large number of campuses are not rated because they do not serve students in TAKS tested grades, because they are new and therefore have no baseline scores against which to measure progress, or for other technical reasons. Progress is determined by comparing the current passing rates on TAKS, the graduation rates, and the attendance rates to those in the previous year. Thus, the share of fifth graders passing TAKS in 2010-11 is compared to the share of fifth graders passing TAKS in 2009-10. As such, while AYP can be thought of as a school-level progress measure, it cannot be considered a value-added measure because it does not track the progress of individual students. Furthermore, changes in student

demographics can lead a school to meet or miss AYP for reasons completely outside of school or district control.

Table 7 illustrates the differences in AYP between AECs of Choice and standard OE charter campuses. As the table indicates, half of the AECs of Choice met AYP in 2010-11, whereas 59% of the standard accountability OE charter campuses met AYP. The difference is even more pronounced when one considers the higher proportion of standard OE charter campuses that were not rated (either because they were new or because they did not serve TAKS-tested grades). Excluding unrated campuses, 74.1% of the standard OE charter campuses met AYP while only 54.3% of the AECs of Choice met AYP.

Table 7. Adequate Yearly Progress ratings for nonresidential OE charter campuses by accountability procedures (2010-11)

AYP Rating	AECs of Choice	Standard Campuses	Total
Meets AYP	63 (49.6%)	183 (59.4%)	246 (56.6%)
Missed AYP	53 (41.7%)	64 (20.8%)	117 (26.9%)
Not rated	11 (8.7%)	61 (19.8%)	72 (16.6%)

Source: Academic Excellence Indicator System (AEIS).[7]

Clearly, one way to identify high-performing charter schools is to focus on charter campuses with exemplary or recognized accountability ratings that are also meeting AYP standards. Only 6 (4.0%) of the 150 OE charter campuses that were rated as either exemplary or recognized in 2010-11 missed AYP.

At the other end of the spectrum, 32 (62.7%) of the 51 OE charter campuses that were rated as academically unacceptable in 2010-11 also failed to meet AYP standards. Furthermore, 28 (23.9%) of the 117 OE charter campuses that missed AYP in 2010-11 had also missed AYP the year before and were therefore subject to sanctions under NCLB. Eight (28.6%) of those 28 OE charter schools had missed AYP for at least 6 consecutive years and therefore were subject to the harshest penalty under NCLB—mandatory restructuring. America Can! held the charter for 4 of the 8 OE charter schools subject to mandatory restructuring under NCLB.

Performance and Normal Curve Equivalent (NCE) Scores

Both the TEA accountability ratings and the AYP ratings focus on the percentage of students passing TAKS. This reliance on passing rates has been strongly criticized in the literature for focusing too much attention on

students near the passing threshold to the detriment of students farther away from that threshold.[37] When passing rates are used to measure performance, schools that make substantial progress with low-performing students receive no recognition for their achievements unless the students cross the bright line that separates passing from not passing. Similarly, schools where high-performing students stagnate are rated the same as schools where high-performing students continue to improve.

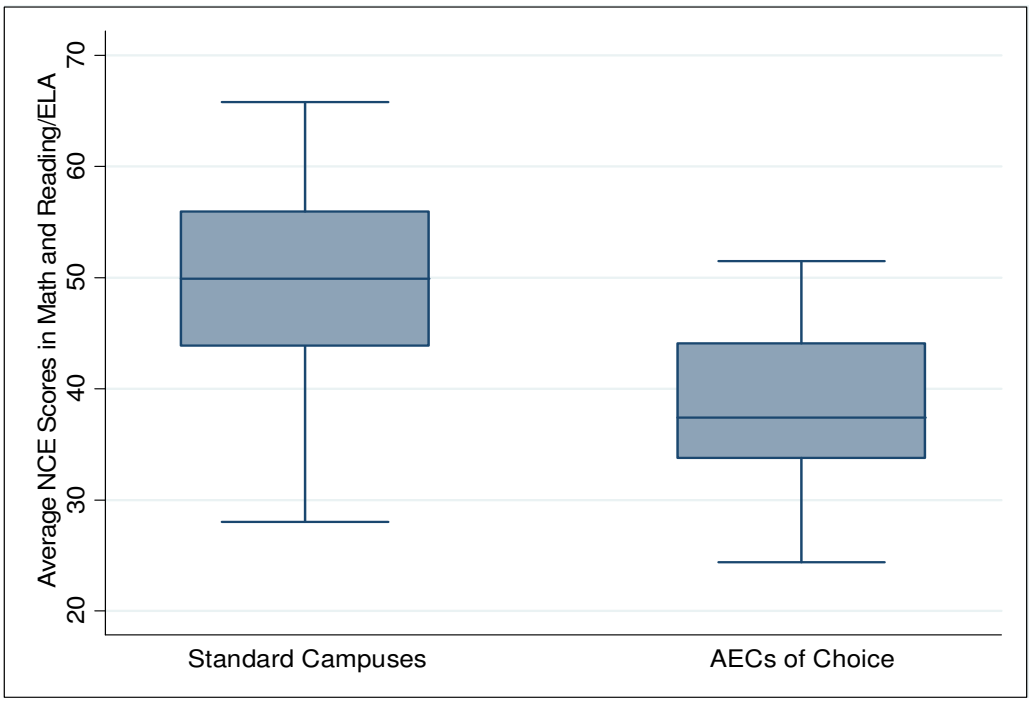
Arguably, gains in student performance at the top and the bottom of the score distribution should also be taken into consideration when identifying high-performing charter schools. One strategy for doing so is to rely on average scores rather than average passing rates to identify high-performing schools. [x]

Figure 1 illustrates the distribution of average normal curve equivalent (NCE) scores in math and reading for OE charter campuses. NCE scores are standardized test scores, where the standardization makes it possible to compare scores across different test subjects and grade levels.[xi] The average score for all students taking a specific test (such as the fifth grade math test) is assigned an NCE score of 50. An NCE score of 71.06 indicates a score that is 1 standard deviation above the mean while an NCE score of 28.94 indicates a score that is 1 standard deviation below the mean.

[x]Data for this analysis were generously provided by Children at Risk, which received anonymized student-level data files for 2009-10 and 2010-11 from the TEA.

[xi]The NCE is defined as $50+21.06*z$. where z is the standardized test score, $z=(xi-\mu)/\sigma$. The transformation does not alter the number of unique scores but does standardize the size of the gaps between scores.

Figure 1. Average normal curve equivalent scores for math and reading/ ELA by nonresidential campus and campus type (2010–11)



Sources: Public Education Information Management System (PEIMS)[10] and authors' calculations.

The 24 OE charter campuses that have no students in grades 3-11 (the grade levels tested on TAKS) cannot be rated by this measure. Because of student privacy concerns and the statistical problems associated with very small sample sizes, the 64 OE charter campuses that have usable test scores from fewer than 30 students are also not rated.[xii] Therefore, the figure presents the distribution of average NCE scores for 347 OE charter campuses.[xiii]

[xii]Test scores flagged by TEA as not usable and scores for students who changed campuses in the middle of the school year were deemed unusable. The 30-student threshold, while arbitrary, was chosen to exclude campuses where test scores for 1 or 2 students could skew the results. Note that TEA generally does not consider the performance of student subgroups with fewer than 30 students when assigning accountability ratings.

[xiii]Of the 347 OE charter campuses, there are 258 standard campuses and 89 AECs of Choice.

The boxes in Figure 2 illustrate the interquartile range for average NCE test scores. Thus, the bottom of each box indicates the campus average NCE score at the 25th percentile of the distribution while the top of each box indicates the 75th percentile of the distribution. The line through the center of each box indicates the median, and the "whiskers" on each box indicate the range over which values are distributed without substantial gaps. The dots indicate campuses with outlier values for the NCE score.

As the figure illustrates, there is a wide variation in scores among OE charter campuses. Looking at both standard campuses and AECs of Choice, a handful of OE charter campuses posted average NCE scores above 65, while a few had average NCE scores below 30. At the mean, average NCE scores were significantly lower for AECs of Choice (pupil-weighted mean NCE=37.6) than for standard accountability campuses (pupil-weighted mean=50.4), but some AECs of Choice clearly outperformed some standard campuses.[xiv]

TEA accountability ratings and NCE scores indicate the *level* of student performance. The accountability ratings indicate whether or not students are achieving a basic level of proficiency, by subgroup, while NCE scores provide additional information that can distinguish schools where students barely pass the TAKS from schools where students sail over the bar. Combining the 2 indicators provides a more complete picture of the level of student performance than either can provide alone.

Table 8 presents descriptive statistics on the NCE scores, by accountability rating, for OE charter campuses. As the table illustrates, NCE scores are higher, on average, at Exemplary and Recognized campuses than they are at other campuses. However, there is a wide range of average scores, even among the OE charter campuses rated as Exemplary or Recognized by TEA. Some campuses ranked highly by TEA have average NCE score below the state average of 50. It would be hard to argue that students attending OE charter campuses with average NCE scores below 50 are high-performing students.

[xiv] Tests for the difference of pupil-weighted means were based on standard errors that were adjusted for clustering of the data at the school-district level.

Table 8. The distribution of average NCE scores for nonresidential OE charter campuses by accountability rating (2010-11)

Accountability Rating	N	Mean	Std. Dev.	Min.	Max.
Exemplary	52	59.20	3.55	49.35	65.80
Recognized	84	51.78	4.59	35.62	59.27
Academically acceptable					
AEC of Choice	81	39.15	6.86	24.64	51.50
Standard campus	92	45.24	5.01	29.39	58.92
Academically unacceptable					
AEC of Choice	8	31.33	7.04	24.36	43.13
Standard campus	30	40.82	6.48	27.99	58.86

Sources: Academic Excellence Indicator System (AEIS)[7] and Public Education Information Management System (PEIMS).[10]

Performance and NCE Gain Scores

On the other hand, high-performing students don't necessarily imply high-performing schools or vice versa. Researchers have long recognized that advantaged students tend to perform well even when the school is mediocre and that disadvantaged students tend to perform poorly even when the school is outstanding.

The key to identifying a high-performing school is to separate the school's contribution to student performance from the influence of student and family characteristics. One way to do this is to concentrate on changes in the performance of individual students from one year to the next. Researchers generally believe that such measures are more reliable indicators of the impact schools are having on students than are performance level measures like the passing rate or the NCE score.

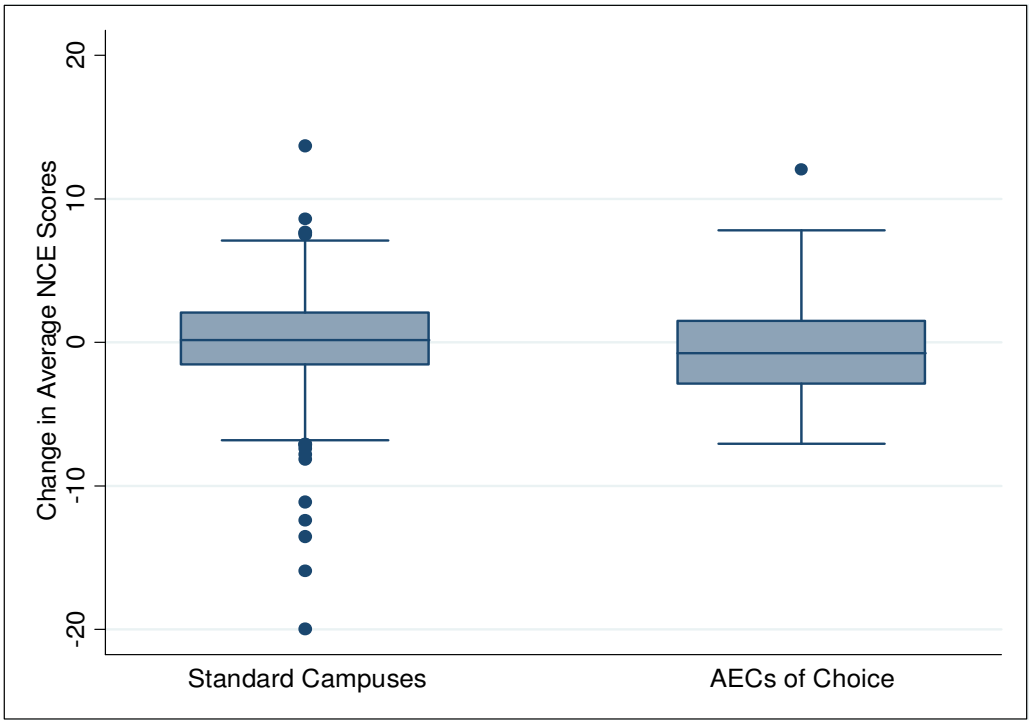
To calculate the average NCE gain for each campus, we first calculated the mathematics NCE score in 2009-10 and the mathematics NCE score in 2010-11 for each individual student in Texas.[xv] We did the same for reading/ELA NCE scores. We then calculated the change in NCE scores for each individual student in each subject and averaged those changes across the students attending each school.[xvi] Thus, for example, the average NCE gain for the Brazos School for Inquiry and

[xv] Data for this analysis were generously provided by Children at Risk, which received anonymized student-level data files for 2009-10 and 2010-11 from the TEA.

[xvi] Only scores from the first administration each year are included. If a prior score did not exist or the prior test was not taken in the appropriate grade, then the NCE gain was set equal to missing. Only students with both math and reading/ELA gains are included in the campus averages

Creative Thinking is the average of the student-specific NCE gains in math and reading/ELA for all of the students who attended that OE charter school in 2010-11. Because each student used in the calculations needs to have math and reading/ELA scores for both 2009-10 and 2010-11, and some students with scores for 2010-11 have no prior scores in PEIMS, it is not possible to calculate NCE gains for every student with an NCE score. Similarly, it is not possible to calculate average NCE gains for every campus with average NCE scores. Figure 2 illustrates the distribution of average NCE gains across the 285 OE charter campuses with gain score data for at least 30 students.[xvii]

Figure 2. Average NCE gains in math and reading/ELA by nonresidential OE charter campus (2010–11)



Sources: Public Education Information Management System (PEIMS)[10] and authors' calculations.

As the figure illustrates, some campuses saw large NCE gains while other campuses saw large declines. On average, NCE gains were negligible, indicating that students in OE charter campuses improved at the same rate as the statewide population between 2009-10 and 2010-11.

[xvii] Again, this threshold, while arbitrary, was designed to exclude campuses where a small number of students could skew the results.

More strikingly, the average NCE gain was as large for AECs of Choice as it was for standard campuses. In other words, whereas level measures of student performance indicate that standard campuses systematically outperform AECs of Choice, the gain score measures indicate that AECs of Choice have the same impact as standard campuses on student performance.

Table 9 explores the relationship between student demographics and 3 possible indicators of school performance, using data on both OE charter and traditional public school campuses. As the table illustrates, TAKS passing rates (the primary determinants of TEA accountability ratings) and average NCE scores are highly correlated with student demographic characteristics in Texas. Campuses with higher shares of minority students, economically disadvantaged students, or students at risk of dropping out of school have significantly lower passing rates and average NCE scores than do other campuses. In other words, student demographics can explain much of the variation in school performance on these measures.

Table 9. The correlation between student demographics and school performance indicators (2010-11)

	TAKS Passing Rate	Average NCE Score	NCE Gain Score
Percent of students who were			
Non-Hispanic white	0.4232*	0.4860*	0.0434*
African American	-0.2368*	-0.2644*	0.0240*
Hispanic	-0.3476*	-0.4029*	-0.0727*
Economically disadvantaged	-0.5682*	-0.6753*	-0.0682*
At risk	-0.5313*	-0.6020*	-0.0891*
Limited English proficient	-0.1577*	-0.2676*	-0.0597*
Special education program	-0.1984*	-0.1867*	-0.0057
Gifted and talented program	0.1918*	0.3094*	0.0096
Bilingual education program	-0.1529*	-0.2600*	-0.0581*
TAKS Passing Rate	1.0000*		
Average NCE Score	0.9351*	1.0000*	
NCE Gain Score	0.2690*	0.2500*	1.0000*

Notes: Pearson correlations for 7,071 campuses with NCE gain score data for at least 30 students. The passing rate is the percent passing both the math and reading/ELA TAKS tests. An asterisk indicates a correlation that is statistically significant at the 5% level.
Sources: Academic Excellence Indicator System (AEIS)[7] and authors' calculations.

NCE gain scores are also significantly correlated with these demographic characteristics, but the relationship is much weaker. For example, where variations in the share of economically disadvantaged students can explain 32% of the variation in TAKS passing rates (r-square=0.56*0.56), they can explain only 0.5% of the variation in average NCE gain scores. None of the correlations between NCE gain scores and student demographics exceed 0.10, so none of the demographics can explain more than 1% of the variation in average NCE gain scores. As such, the NCE gain scores reflect variations in student performance that are largely separated from the demographic characteristics of the students. This is a desirable feature in a school quality measure because it ensures that evaluators will not conclude that a school is high performing simply because it has managed to attract demographically advantaged students.

Table 9 also demonstrates that there is a positive correlation between NCE gain scores and TAKS passing rates or average NCE scores. As a general rule, campuses with higher NCE gains also have higher average scores and higher passing rates. In other words, schools can have both high performance levels and high performance gains.

Table 10 compares average NCE gains with TEA's accountability ratings for OE charter campuses. As the table illustrates, on average the NCE gains for exemplary campuses were higher than those for recognized campuses, which in turn were higher than those for campuses rated academically acceptable or academically unacceptable.

Table 10. The distribution of average NCE gains for nonresidential OE charter campuses by accountability rating (2010-11)

Accountability Rating	N	Mean	Std. Dev.	Min.	Max.
Exemplary	50	1.56	2.39	-2.18	8.59
Recognized	73	0.66	3.12	-8.14	7.70
Academically acceptable					
AEC of Choice	52	-0.21	3.59	-7.06	12.02
Standard campus	82	-1.07	3.86	-15.90	7.08
Academically unacceptable					
AEC of Choice	4	-3.99	1.02	-4.78	-2.61
Standard campus	24	-1.06	6.12	-19.96	13.68

Sources: Academic Excellence Indicator System (AEIS)[7] and Public Education Information Management System (PEIMS).[10]

However, there was considerable overlap among the rating groups. Both the highest-performing OE charter campus and the lowest-performing OE charter campus were assigned the same rating by TEA—academically unacceptable. The highest-performing OE charter campus according to the NCE gain measure was ranked academically unacceptable despite high performance on mathematics and reading because too few students passed the TAKS in writing (a skill not tested in every grade level and therefore a skill not directly measured by the average NCE gain).

Performance and Value-Added Scores

While NCE gains represent a reasonable approach and a clear improvement over level scores, they remain an incomplete measure of the influence of schools on student performance. The standards of the discipline suggest that the gains for some student groups—such as those who were previously low performing or those who were economically disadvantaged—may be systematically different from the gains for other student groups. Thus, the measure of student performance should take these differences into account.[38,39] Models designed to control not only for prior test scores but also for demographic differences are commonly referred to as value-added models.

Hierarchical linear modeling is a popular strategy for estimating value-added models of student performance.[xviii] Hierarchical linear modeling is a statistical technique that estimates the relationship between the dependent variable (in this case, test scores) and an array of independent variables (in this case, prior test scores and student demographics) while formally modeling the nested structure of the data (in this case, the fact that students are nested within campuses and campuses are nested within districts).

The Financial Allocation Study for Texas (FAST)[40] uses hierarchical linear modeling to estimate the value added by every standard accountability campus in Texas. The FAST value-added model controls not only for prior performance but also for each student's ethnicity, limited English proficiency, sex, grade level, socioeconomic status, gifted program status, and special education status. The model estimates value added for all students attending standard accountability campuses each year; students attending AECs are not included in the analysis.

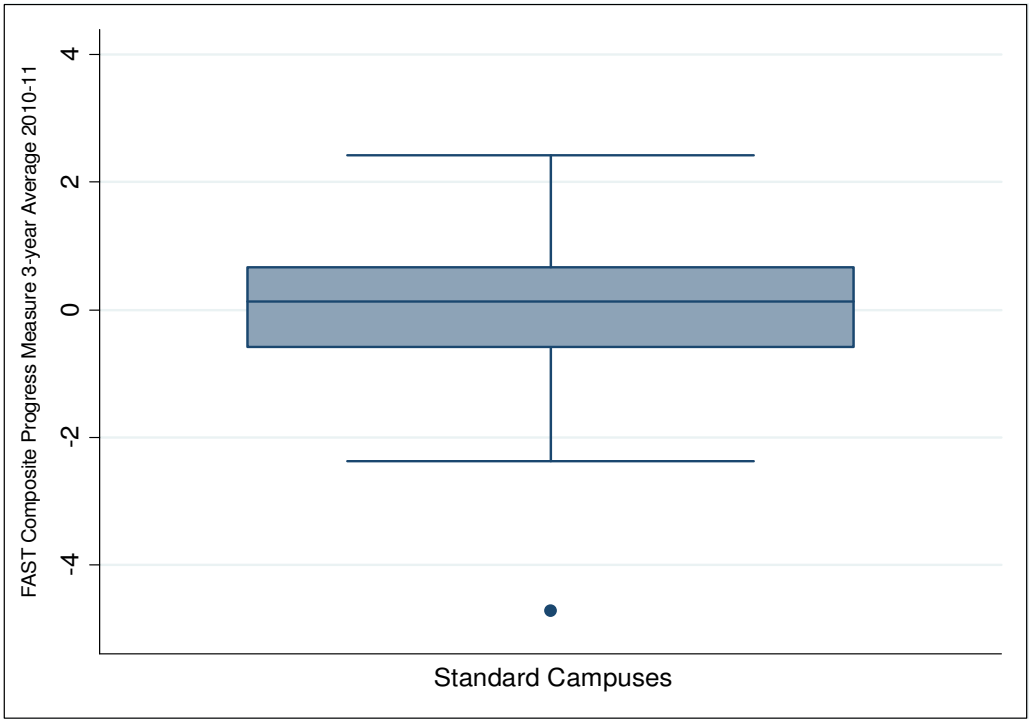
The FAST composite progress score averages campus value-added in reading/ELA and math over 3 years rather than measuring value

[xviii]Other strategies include estimating standard regression models and estimating regression models with fixed or random effects for individual students.

added for a single year. This approach reduces the volatility in the performance measure that can sometimes be seen from year to year and helps to ensure that campuses are not identified as high performing on the basis of a lucky anomaly. However, the approach is also data intensive and by design cannot identify a campus as high performing until it has been in operation for at least 3 years. Therefore, FAST ratings are not available for many standard accountability campuses.

Figure 3 illustrates the distribution of the FAST composite progress scores for OE charter campuses in operation in 2010-11.[41] Only standard campuses are shown because the FAST composite progress score is not available for AECs. Again, the evidence suggests that there are high-performing OE charter campuses and low-performing OE charter campuses. On average, the progress measure is indistinguishable from 0, indicating that standard OE charter campuses perform at the state average on this measure.

Figure 3. FAST composite progress score by campus (2010-11)



Source: Financial Allocation Study for Texas (FAST).[41]

Table 11 compares quintiles of the FAST composite progress scores with TEA's accountability ratings for OE charter campuses during 2010-11. The 20% of campuses statewide with the highest FAST

composite progress scores are in the top quintile (quintile 5). The 20% of campuses statewide with the lowest FAST composite progress scores are in the bottom quintile (quintile 1).

As the table illustrates, Exemplary OE charter campuses were most likely to be in the top 2 quintiles of FAST composite progress scores, whereas Academically Unacceptable OE charter campuses were disproportionately found in the bottom quintile. However, there were OE charter campuses deemed Recognized by TEA in the lowest quintile of FAST composite progress scores, and OE charter campuses deemed Academically Acceptable in the highest FAST quintile. One way that a Recognized campus could find itself in the lowest FAST quintile would be if test scores fell sharply from one year to the next but passing rates remained above the performance threshold for a Recognized rating (which is 80%).

Table 11. The distribution of FAST composite progress quintiles for nonresidential OE charter campuses by accountability rating (2010-11)

	FAST Composite Progress Quintiles					
Accountability Rating 2010-11	**Not Rated**	**1**	**2**	**3**	**4**	**5**
Exemplary	16	0	2	5	16	17
Recognized	30	6	8	13	21	16
Academically acceptable	144	21	13	17	12	2
Academically unacceptable	29	9	7	2	3	1
Not Rated	25	0	0	0	0	0
Total	244	36	30	37	52	36

Notes: Alternative education campuses (AECs), campuses that had been open less than 3 years, and campuses with too few students in TAKS-tested grades were not assigned a FAST composite progress score.
Sources: Academic Excellence Indicator System (AEIS)[7] and Financial Allocation Study for Texas (FAST).[41]

Performance and Charter School Efficiency

Cost effectiveness is an important aspect of charter school quality but one that is not captured by the student performance metrics. By incorporating inputs as well as outputs, the FAST system also provides a measure of the relative cost effectiveness of schools.

The FAST spending index is based on a 3-year average of labor-cost-adjusted, operating expenditures for campus-related activities (i.e., instruction, instructional services, instructional leadership, school

leadership, and student support services).[xix] Campuses are assigned to spending categories (very low, low, average, high, and very high) based on how their expenditures compare to the expenditures of their fiscal peers (i.e., campuses that operate in a similar cost environment, are of similar size, and serve similar students). The FAST fiscal peers were selected through school-level PSM, and each campus has its own unique set of up to 40 fiscal peers. A campus with a spending index rating of "very low" would be in the bottom quartile of its fiscal peers with respect to operating expenditures for campus-related activities.

Spending index scores are available for both AECs of Choice and standard campuses that had been operating for the requisite 3 years as of the 2010-11 school year. Table 12 illustrates the distribution of FAST spending index scores for these OE charter campuses.

Table 12: The distribution of FAST spending index scores for nonresidential OE charter campuses (2010-11)

FAST Spending Index	AECs of Choice	Standard Campuses	Total
Very High	4 (3.2%)	29 (9.4%)	33 (7.6%)
High	24 (18.9%)	19 (6.2%)	43 (9.9%)
Average	29 (22.8%)	23 (7.5%)	52 (12.0%)
Low	30 (23.6%)	40 (13.0%)	70 (16.1%)
Very Low	20 (15.8%)	103 (33.4%)	123 (28.3%)
Not Rated	20 (15.8%)	94 (30.5%)	114 (26.2%)
Total	127 (100%)	308 (100%)	435 (100%)

Note: Campuses were not rated if they had been open less than 3 years in 2010-11.
Source: Financial Allocation Study for Texas (FAST).[41]

As the table illustrates, a disproportionate number of OE charter campuses were designated as low or very low spending. Nearly 4 times as many OE charter campuses were rated very low spending (123) than were rated very high spending (33). Standard accountability OE charter campuses were significantly more likely than AECs of Choice to be rated very low spending.

Performance and FAST Ratings

The FAST ratings are based on a cross-tabulation of campus performance on the FAST Composite Progress Score and the FAST Spending Index. FAST ratings are based on a 1 to 5 scale, where a 5 indicates that a

[xix] Payroll expenditures have been adjusted for regional differences in labor costs; non-payroll expenditures are unadjusted.

campus is in the top quintile statewide with respect to the composite progress score and in the bottom quintile with respect to the spending index, and a 1 indicates that a campus is in the bottom quintile with respect to the progress score and the top quintile with respect to the spending index.

Given the relative performance of OE charter campuses on the FAST spending index, it should come as no surprise that OE charter campuses also perform well on the composite FAST ratings. Table 12 presents the distribution of FAST ratings in 2010-11. As the table illustrates, OE charter campuses were much more likely to receive a FAST rating of 4.5 or better than to receive a FAST rating of 1.5 or lower. Forty OE charter campuses were rated 4.5 or better, compared to only 6 campuses rated 1.5 or lower. The average FAST rating for OE charter campuses (3.47) was significantly higher than the average FAST rating for all traditional public school campuses in Texas (3.02).

Table 13. The distribution of FAST ratings for nonresidential OE charter campuses (2010-11)

FAST Rating	Standard Campuses
1	1 (0.2%)
1.5	5 (1.2%)
2	8 (1.8%)
2.5	23 (5.3%)
3	41 (9.4%)
3.5	32 (7.4%)
4	31 (7.1%)
4.5	26 (6.0%)
5	14 (3.2%)
Not rated	254 (58.4%)
Total	435 (100%)

Notes: Alternative education campuses, campuses that had been open less than 3 years, and campuses with too few students in TAKS-tested grades were not rated.
Source: Financial Allocation Study for Texas (FAST).[41]

Identifying High-Performing Charter Campuses

Ongoing policy initiatives have been designed to foster the creation or expansion of high-performing charter schools. The only problem is figuring out what that means. As the discussion above illustrates, there are many possible indicators that could be used to determine whether or not a charter school is “high performing.”

The official indicators—TEA accountability ratings and AYP status—are particularly weak measures of school performance. They classify schools without any consideration for student demographics or prior student achievement. As a result, small shifts in student characteristics can lead to big changes in the indicator values. For example, if this year's fifth graders are more affluent and better prepared than last year's fifth graders, then accountability ratings can rise and a school can make AYP even if nothing about the school has improved. On the other hand, a school's ratings can plunge if it enrolls a few new students who are reading far below grade level or struggling with math. By construction, these official indicators provide more of a description of the students who attend a school than a description of the school itself.

Two unofficial indicators of school performance in Texas—the NCE gain score and the FAST composite progress score—can be categorized as within-students models akin to those used in the literature on charter effectiveness. Both are designed to control for demographic differences among schools. Of the 2, the FAST composite progress score is the more complete measure because it controls not only for prior student performance but also for differences in contemporaneous student demographics. As such, it is the best available indicator of charter school quality in Texas.

Unfortunately, the FAST composite progress score is not available for alternative education campuses. Therefore, we rely on quintiles of the average NCE gain score as our effectiveness indicator for AECs of Choice. Like the FAST composite progress measure, the average NCE gain score describes changes in student performance in math and reading; unlike the FAST composite progress measure, the average NCE gain score does not control for any demographic characteristics other than prior performance. Furthermore, there is a mismatch in the years of analysis—the FAST composite progress measure covers the period from 2008-09 through 2010-11 while the average NCE gain covers only the 2010-11 school year. This mismatch means that the indicators are not directly comparable to one another. In fact, the correlation between the 2 indicators, while positive and statistically significant, is not especially high (Pearson correlation = 0.42). Nevertheless, the average NCE gain score is the best available measure of performance for AECs of Choice because it is the only available measure that is not heavily influenced by the demographic characteristics of the students.

There are 36 OE charter campuses in the highest quintile on the FAST composite performance measure and 13 charter AECs of Choice in the highest quintile on the average NCE gain score. These OE charter

campuses outperformed 80% of the public school campuses in Texas; thus, it would be hard to argue that they did not meet the definition of high-performing charter schools. Table 14 lists these 49 high-performing OE charter campuses in Texas.

The high-performing OE charter campuses run the gamut from small (Shekinah Radiance Academy in Garland has only 119 students) to large (George Gervin Academy has 1225 students). Nearly half (22) are elementary schools, 7 are middle schools, and 11 are high schools. The remaining 9 are multigrade schools. Seventeen of the high-performing OE charter campuses are in the Houston metropolitan area. All but 3 serve a student body that is more than 70% nonwhite, and most (71%) serve a student body that is more than 80% economically disadvantaged.

Table 14. The high-performing OE charter campuses in Texas

Accelerated Interdisciplinary Academy	*
Ambassadors Preparatory Academy	*
AW Brown-Fellowship Charter School	*
Brazos School for Inquiry and Creativity	
Calvin Nelms High School	*
Children First Academy of Houston	
Children First of Dallas	*
Dallas Can Academy at Pleasant Grove	
Eden Park Academy	*
Faith Family Academy of Oak Cliff	
Gateway Academy—Townlake Charter High School	
George Gervin Academy	*
Higgs Carter King Gifted & Talented	*
IDEA Academy	*
IDEA College Prep	
IDEA College Preparatory San Benito	
IDEA Frontier Academy	*
IDEA Frontier College Preparatory	*
IDEA Quest Academy	*
KIPP 3D Academy	
KIPP Academy Middle	
KIPP Austin College Prep	
KIPP Austin Collegiate	
KIPP Polaris Academy for Boys	
New Frontiers Middle School	
North Hills Primary School	*
Northwest Preparatory	

Nova Academy	*
Paseo Del Norte Academy Ysleta	
Ripley House Charter School	
Rise Academy	*
Ser-Ninos Charter Middle	*
Shekinah Radiance Academy (Garland)	
Shekinah Radiance Academy Scholars Academy	*
South Plains Academy	
Southwest High School	
St. Mary's Academy Charter School	
Tekoa Academy of Accelerated Studies	
Texas Preparatory School	
Two Dimensions Preparatory Academy	
Uplift Education Peak Prep High School	
Uplift Education Peak Prep Primary	*
Uplift Education Summit International Preparatory, Primary	*
Uplift Education Summit International Preparatory	
Williams Preparatory	
YES Prep—Gulfton	*
YES Prep—Southeast Campus	*
YES Prep—Southwest Campus	*
Zoe Learning Academy—Ambassador Campus	*

Note: The asterisk indicates a campus that is also low-spending according to FAST.
Sources: Financial Allocation Study for Texas (FAST),[41] Public Education Information Management System (PEIMS)[10] and authors' calculations.

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All of the high-performing AECs of Choice were classified as Academically Acceptable by TEA in 2010-11. Academically acceptable is the highest possible ranking for an AEC under the Texas accountability system, and nearly all AECs of Choice were rated academically acceptable in 2010-11.

Twenty-eight of the 36 high-performing standard campuses were classified as Exemplary by TEA in 2009-10 or 2010-11. However, another 86 OE charter schools that were designated Exemplary by TEA in 2009-10 or 2010-11 did not make the cut. At the other extreme, 3 high-performing standard campuses—Tekoa Academy of Accelerated Studies, Two Dimensions Preparatory Academy, and KIPP Polaris Academy for Boys—were, at best, classified as Academically Acceptable during 2009-10 and 2010-11, further illustrating the potentially misleading nature of the state's accountability system.

A few of the high-performing OE charter campuses spend a lot of resources to achieve their lofty rank, but most are also highly cost-

effective. The asterisks in Table 14 indicate high-performing OE charter campuses that are also classified as low or very low spending on the FAST spending index. Nearly half (48%) of the high-performing OE charter campuses are also highly efficient, earning the equivalent of a FAST rating of 4.5 or better.

While Table 14 identifies the high-performing charter schools in Texas, 56 charter campuses lie at the other end of the spectrum. There are 36 OE charter standard campuses in the bottom quintile on the FAST composite progress score and 20 charter AECs of Choice in the bottom quintile of the average NCE gain score. These OE charter campuses underperform 80% of the public school campuses in the state.

Arguably, many of the 56 OE charter campuses in the bottom quintile are low performing because they are starved for resources. If they had access to the same level of funding as other campuses, they could achieve the same level of performance. However, 15 low-performing OE charter campuses have no such excuse; they have average or above average spending, according to the FAST spending index, earning them the equivalent of a FAST rating of 2 or lower. Seven of these low-performing but high-spending campuses are AECs of Choice; the other 8 are standard accountability campuses. Only 3 are elementary or middle schools, and only 5 of the 15 were classified as Academically Unacceptable by TEA during 2009-10 or 2010-11. Notably, 2 of the 15, Dallas Can! Academy and Houston Can! Academy, have missed AYP for at least 6 consecutive years and are currently subject to mandatory restructuring under NCLB.

Conclusions and Policy Recommendations

This paper has presented several metrics that can be used to identify high-performing charter schools. Those metrics are not mutually exclusive—one could easily justify using multiple measures to evaluate school effectiveness—but they are also not equally informative. If the goal is to measure the contributions that schools are making to student knowledge and skills, then a value-added approach like that taken by the FAST project is clearly superior to a levels-based approach like that taken under the current accountability system.

Texas is currently in the midst of a transition from one standardized testing regime (TAKS) to another (the State of Texas Assessments of Academic Readiness, or STAAR). This transition creates a golden opportunity for policymakers to incorporate value-added modeling into the official accountability system. Previous efforts at incorporating a value-added analysis into the system—namely the Texas Projection Measure

(TPM)—were not consistent with the literature on performance measurement because they were designed to anticipate changes in performance rather than to retrospectively measure changes in student achievement. The poor performance of the TPM should not be allowed to taint the proper application of value-added methodologies. Houston ISD and Dallas ISD have a track record of success with using value-added models to measure student performance. The FAST provides a good model for implementing value-added models statewide. The time is now.

However, the fact that FAST ratings are currently only available for standard campuses in Texas is an issue. Some of the state's most challenged schools are AECs of Choice, and FAST currently provides no insight into their performance. A corollary to the above recommendation is that the Texas Comptroller of Public Accounts or TEA should also be charged with developing a value-added measure of student performance that is appropriate for AECs.

Once an appropriate accountability system is in place—one that can disentangle high-performing campuses from high-performing kids and low-performing campuses from low-performing kids—then the state will have a defensible standard for taking action against low-performing but not low-spending charter schools. The legislation authorizing charter schools in Texas specifically allows the state to withhold funds from OE charter schools that are failing to achieve academic objectives, but enforcement has been weak. In the past 5 years, 101 OE charter campuses have been closed, but only 3 have been closed on academic grounds.[42] Continuing to fund low-performing but not low-spending campuses wastes the State's scarce educational resources and does a particular disservice to the already disadvantaged students whom charter schools tend to attract.

Finally, Texas should make it easier for high-performing OE charter schools to expand. Unlike traditional public school districts, OE charter districts must seek permission to open a new campus, increase enrollment beyond designated maximums, or expand into a new territory. Approval for high-performing charter districts (properly defined) should be automatic. When it comes to charter schools, Texas should let a 1,000 flowers bloom but keep a bottle of weed-killer on hand, just in case.

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