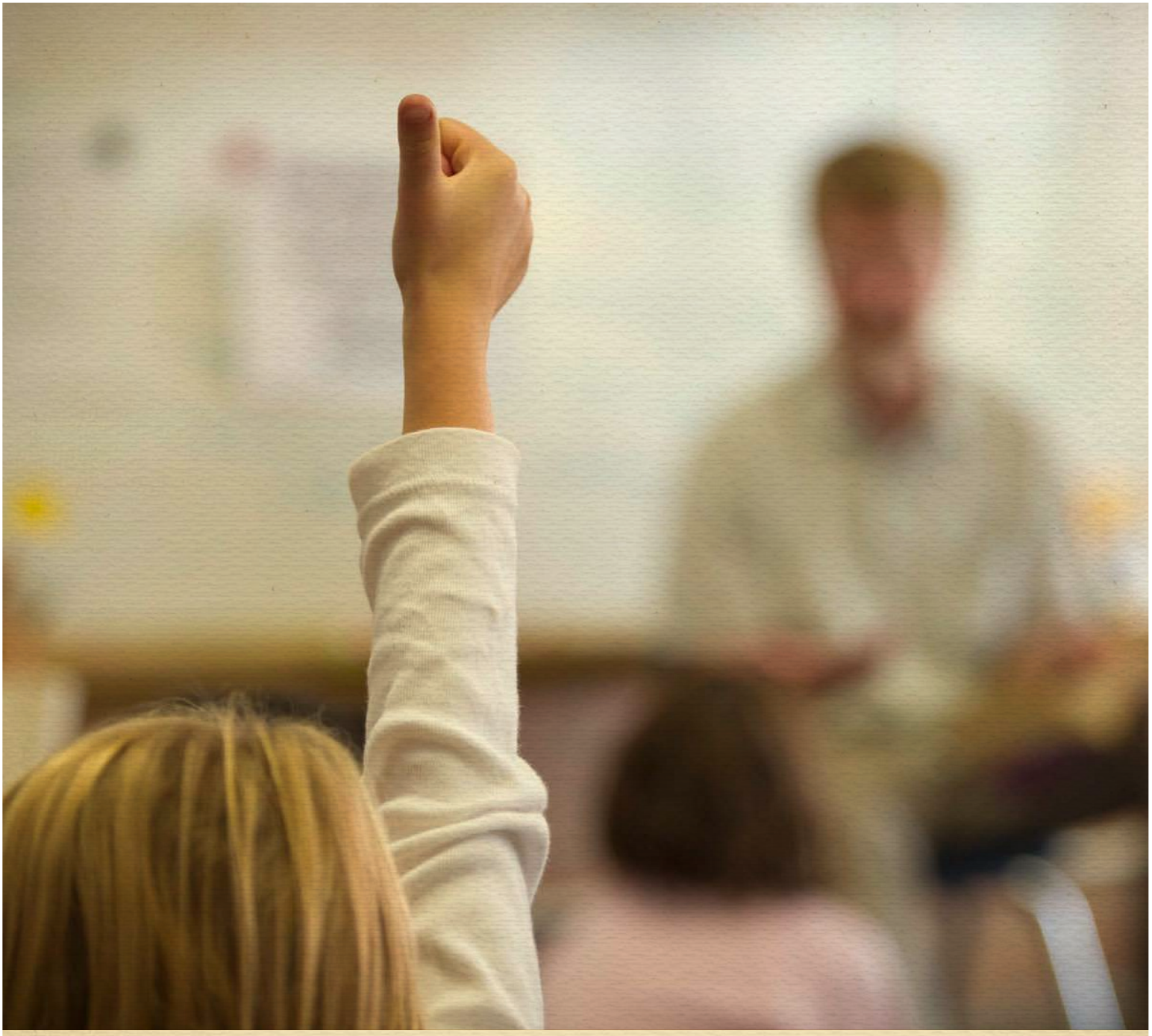

BEYOND AVERAGES:
SCHOOL QUALITY IN DENVER PUBLIC SCHOOLS

DONNELL-KAY FOUNDATION

"Beyond Averages: School Quality in Denver Public Schools"

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The Donnell-Kay Foundation is a non-profit 501(c)3 family foundation that supports improving public education in Colorado. The Foundation has provided grant money to support a number of programs at Denver Public Schools as well as direct support of several schools mentioned in this report. Members of the Foundation staff serve in an advisory capacity to numerous organizations and hold positions on the boards of charter schools that were part of this analysis.

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Executive Summary

Since 2009, academic outcomes for students in Denver Public Schools (DPS) have slowly improved. The primary mechanism for increasing academic performance lies within the district's schools, and on an aggregate level Denver has seen a substantial rise in both the number of quality schools and the percentage of students they serve. Every child deserves to attend a quality school, and while there is still much work to be done, the past five years have demonstrated encouraging progress.

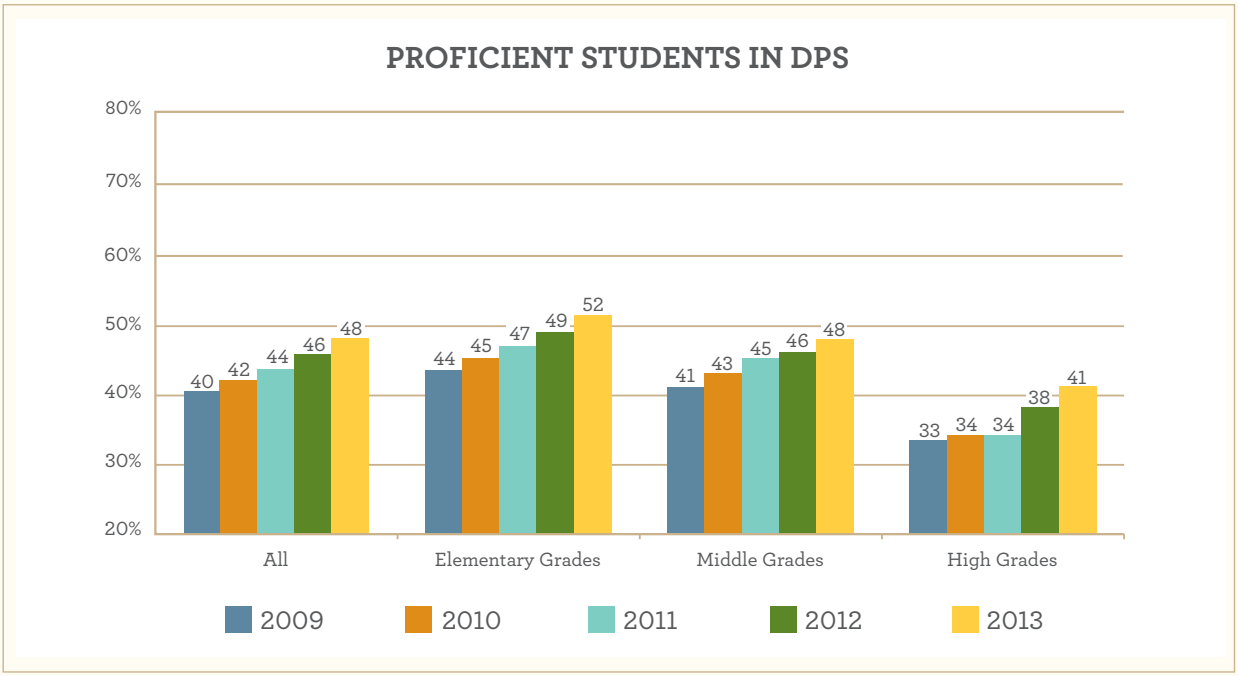
Yet based on an analysis of school quality we would urge considerable caution, for not all of the district's strategies are bearing equal fruit, and aggregated improvement should not result in a blanket affirmation of all policies. No large organization will be successful in all of its efforts, and deciding which activities to diminish or cease is as important a decision as which to intensify. Indeed, the ability of DPS to amend and improve its practice based on an acknowledgement of which activities are working — and which are not — is critical to any long-term gains, for there are areas where restraint seems a far superior course than acceleration.

The strategy of closing poorly-performing schools appears to be migrating a meaningful number of low-income students into quality schools. In addition, opening new charter schools (and particularly the expansion of successful charter networks) has served DPS well. However, new schools operated by the district have had little impact on increasing the number of quality schools, especially with schools enrolling large percentages of low-income students. And while the district has, very recently, improved many of its elementary schools, there is no historical evidence that the district has the ability to open or operate quality schools in the secondary grades.

For this report, we examined the past five years of performance in three disparate groups of schools: those closed or slated for closure ("closing schools"), those newly formed ("new schools"), and those that fall into neither category ("continuing schools"). Within these three school groups, we also assess criteria around governance models, student demographics, and grade levels. Based on our analysis we conclude with specific recommendations for the district and Denver's Board of Education to build on a growing foundation of progress. Every child deserves to attend a quality school, and if the district focuses on the right strategies, more children will soon have that opportunity.

Improved Outcomes at Denver Public Schools

In large part, the past five years in Denver Public Schools has seen steady progress towards better academic outcomes, particularly a slow but generally consistent increase in the percentage of students at or above basic proficiency, as can be seen in the chart below:[1]



No one would argue that these levels of proficiency are sufficient — even with recent gains, fewer than one of every two DPS students can read, write, and perform math at grade level — but the improvements deserve both notice and respect. Denver's citizens should not be satisfied, but they should be encouraged.

However, even as scores improve, it is critical to note what is perhaps the most significant challenge to public school systems across Colorado: proficiency levels decline as students' progress through the public school system. In Denver, this has continued even as overall proficiency has slightly improved. In 2009 the difference between the proficiency levels of elementary school students and high school students in DPS was 10.2 percentage points, and despite increases at both levels, the gap has widened slightly, to 10.8 percentage points in 2013. The longer students attend public schools in Colorado, the more likely they are to be behind grade level. This makes improving performance in secondary grades (6-12) of paramount importance if our public schools are to produce college and career-ready graduates.

[1] This report excludes data from students enrolled in Alternative Education Campuses (AECs).

The Increase in Quality Schools

DPS primarily drives academic results through a single mechanism: its schools. For students to achieve better academic outcomes, this delivery system must continually improve. This means, very simply, more quality schools that serve an increasing number and percentage of students.

In exploring the district's performance over the past five years, we looked in depth at the most critical factor: school quality. In doing so, we used as our yardstick DPS's own measure: their School Performance Framework (SPF). Consistent with our 2012 report ***True North: Goals for Denver Public Schools***, we took as our standard for quality those schools that receive at least 70% of available points on the SPF.

Aggregated results show a marked increase in the number of quality schools in DPS and the percentage of students they serve. In 2013, a total of 40 schools (26% of all schools) met the distinction of 70% or more points on the SPF, up from just 19 schools (15%) in 2009. More importantly, both the total number of students who attend these schools and their percentage of overall enrollment have increased.

In 2009 roughly 9,300 students (13%) attended a quality school. By 2013 this number had more than doubled to just under 19,000 students (24%). This is a welcome trajectory.

Perhaps more importantly, a far higher percentage of low-income students attend quality schools in Denver in 2013 than ever before. Again based on the SPF, in 2009 just over 3,100 kids, or 6.5% of all low-income students attended a quality school. Five years later quality schools served more than 9,350 kids, or 16.4% of all low-income students. Enrollment in quality schools is now comprised of almost half (49%) low-income students, up from about one-third (34%) in 2009.

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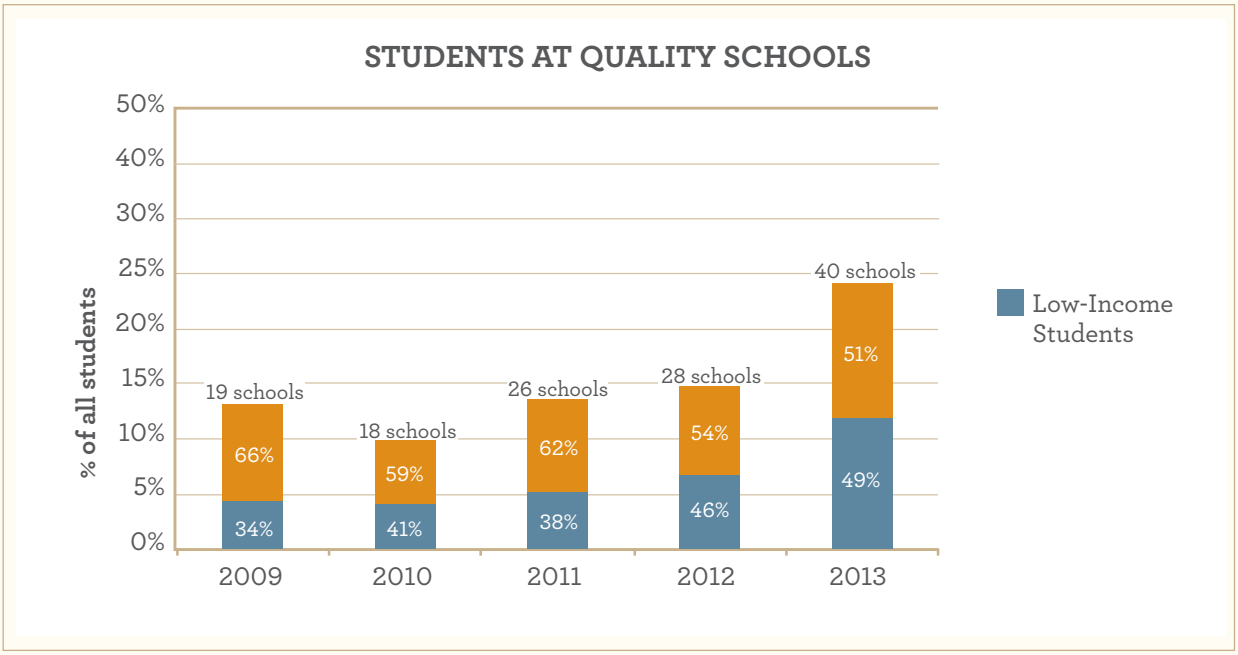


We are still a long way from our goal of equal access for students regardless of economic circumstance. Based on SPF data just one in every six students in poverty in Denver attended a quality school in 2013. However we must also acknowledge and commend the progress in this area since in 2009 just one in every sixteen students in poverty attended a quality school.

Averages, and Beyond...

These are good results and are evidence of an improving school district. But as with any aggregated data, averages only tell a part of the story. To unpack and analyze the overall results in better detail, we examined the past five years for specific school groups, as well as criteria on governance, grade levels, and demographic populations.

Much has been made of DPS instituting a portfolio strategy that includes closing low-performing schools (both charter and district operated), authorizing new schools (also charter and district), and tighter management of its continuing schools with a new emphasis on performance data. However these are separate components, and particularly when inspected in greater detail it is clear that not all areas have yielded equal benefits.

In particular, disaggregating summary data shows the catalytic impact of charter schools on academic outcomes. While credit can be given to the district for both authorizing and creating a largely favorable environment for charter schools, attribution for their academic results is not directly tied to district policies and in some instances run contrary to them. In 2009, there were four charter schools that met our quality designation; in 2013 there were 15. The performance of many charter schools — particularly the expansion of the DSST, STRIVE and KIPP networks, which have grown collectively from four schools[2] in 2009 to 16 schools in 2013 — provided a tide that has lifted aggregated data, even if results at many other schools remain unchanged.[3]

While we acknowledge the substantial impact of charter schools in Denver, we also do not wish to dwell on it. The majority of this analysis (with the exception of new school performance, in which charters have played a substantial role) is devoted to schools operated by the district, for it is with these schools where the impact of district policies is most clearly evident.

To examine performance in greater detail, we disaggregated schools into three groups as follows (the full school list can be seen in Appendix B):

[2] We are considering DSST Stapleton to include both a middle and a high school.

[3] Exempting AECs, in 2013 median growth percentiles in charter schools were 14 points higher in both middle and high schools, and charter proficiency 11 percentage points higher in middle school and 14 percentage points higher in high school than in schools operated by the district, despite charters enrolling a greater percentage of low-income students. Charter schools increased overall DPS median growth percentiles by 2 points in middle school and 4 points in high school, and increased overall DPS proficiency by 2 percentage points in each.

CLOSING SCHOOLS: Based on SPF data, since 2009 DPS has either closed or is in the process of closing a total of 18 schools, including both charter and district schools. This has been a significant part of the district's strategy and has generated considerable controversy, as the impact on communities is highly disruptive. The impact of these closures within the greater system has been largely unexamined.

NEW SCHOOLS: In the past five years, DPS has initiated 41 new schools,[4] both charter and district. While the performance of these schools has been the subject of previous independent analysis (including Donnell-Kay's 2012 report ***"Great Expectations, Mixed Results"***, it has rarely been considered alongside the district's larger portfolio strategy.[5])

CONTINUING SCHOOLS: This group consists of schools neither slated for closure or new since 2009 and forms the vast majority of the DPS portfolio — a total of 110 schools. Within this group, we did not differentiate between schools with no changes and those that underwent a transformation but remained the same line on the SPF (such as the shift from Henry Middle School to Henry World School). The ability to improve these schools is paramount to evaluating the success of specific policies in DPS, and their performance as a group is often overlooked.

Across these school groups, we also saw three other factors (which often overlapped) that played a meaningful role in school performance:

Governance: The first factor is the governance model. We found a sharp distinction in both overall achievement and access for low-income students between schools run by the district compared with those operated under a charter. This difference was particular compelling with new schools. However, we saw no meaningful difference between the performance of district innovation and traditional schools (which is consistent with other studies, including a recent evaluation by the University of Colorado which found no statistically significant differences) and therefore did not disaggregate innovation schools. There are also two contract schools[6] we did not assign to a group.

[4] For this analysis, we consider a school to be "new" if it received a brand new line on the SPF.

[5] The groups of "closing" and "new" schools are not mutually exclusive, as there are several charter schools that were new since 2009 and have either merged or closed.

[6] The two contract schools are Escuela Tlatelolco and Math and Science Leadership Academy.

Demographics: Secondly, the demographic makeup — particularly the percentage of low-income students served by these different school groups — played a meaningful role in school performance. For many schools, demographics continue to be a strong predictor of academic outcomes; however there are specific schools and groups that appear far more effective in addressing the persistent achievement gaps in income and ethnicity that plague urban education. We define low-income using the standard category of students who qualify for free and reduced meals (FRL and/or FARM).

Grade Level: Lastly, we found a considerable difference in the creation and operation of quality schools depending on grade levels served (elementary, middle, or high). Particularly with district-operated schools, there is a strong distinction between schools that primarily serve elementary grades compared to those that serve exclusively secondary grades.

This analysis will focus on each of the three groups of schools — closing, new, and continuing — with an eye towards the interplay of these three factors (governance, demographics, and grade level).

I. Closing Schools

One of the primary strategies in the portfolio approach is to shutter consistently poor-performing schools. Over the past five years, 18 schools in DPS have either closed or are currently slated for closure. While mobility rates and the lack of access to student-level data makes tracking the impact of these closures on families difficult, we would conservatively estimate that more than 7,000 individual students have attended a closing school during the past five years. Too often these students are invisible within a large public system. Based on 2012 enrollment, if these students comprised a separate district, they would have been the 27th largest school district (of 184) in Colorado.

The dislocation inherent in closing schools disproportionally affects low-income families. The mean and median percentage of low-income students at closing schools in Denver over the last five years hovers around 90%, and no school with fewer than 70% low-income students has ever been slated for closure. The impact on these students, their families, and their communities is often severe. The considerable disadvantages of closing schools means that the policy can only be justified if these students — and new students in the same neighborhoods — are migrating to schools where they are afforded a significantly better education.

"For every three students who were newly enrolled at a quality school in the past five years, two were low-income."

While far from definitive, we found initial evidence to support the belief that there has been a migration of DPS students from schools that are closing due to poor performance into quality schools (an SPF score of 70% or more). Over the past five years, as noted in our introduction, there has been a rapid increase in the number and percentage of low-income students at quality schools, which suggests that many dislocated students are indeed finding better options.

Based on SPF data, in 2009 just 6.5% of the district's low-income students attended a quality school. By 2013 this percentage had grown to 16.4%. Overall enrollment at quality schools increased by 9,633 students; of these, 6,221 (65%) were low-income. For every three students who were newly enrolled at a quality school in the past five years, two were low-income.

Over the five-year period, the percentage of low-income students at all schools increased five percentage points (from 68% to 73%). However, the percentage of low-income students at quality schools increased by 15 percentage points (34% to 49%). To repeat (and it is worth repeating): in 2009, there were just 3,121 low-income students in Denver's quality schools. In 2013, their number had nearly tripled, to 9,342. It would appear that many of these students have migrated from neighborhoods where previously the only option was a closing school.

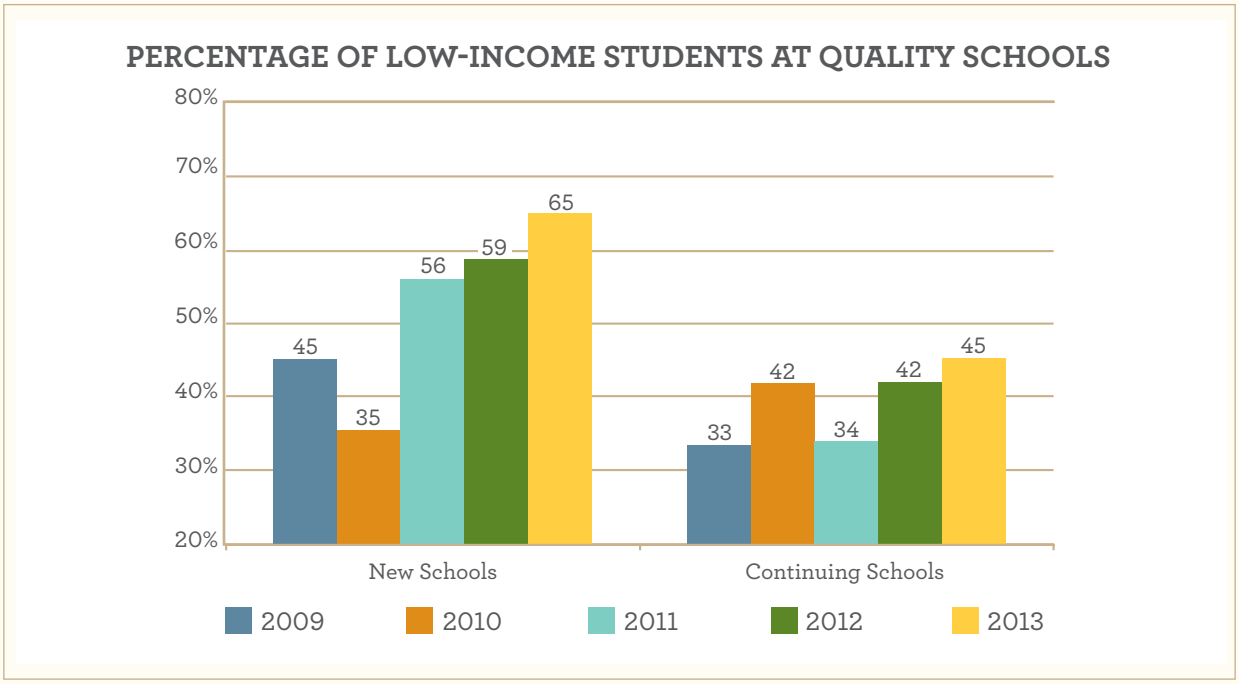
We welcome further study of the impact of school closure from sources with access to student-level data, but at least upon a cursory review, the district's strategy of closing chronically poor-performing schools appears to be giving a large number of low-income kids the newfound chance for a quality education. This development should be commended.

II. New Schools

Critical to any portfolio approach is the ability to initiate schools of quality, and DPS has made a concerted effort to open new schools, including the issuance of RFPs targeting specific criteria and locations. Fully 41 schools have been newly included on the SPF over the past five years[7] (of which four have closed or been slated for closure, and two have merged). In 2013, these new schools enrolled almost 14,000 students, or nearly one in five (18%) of total students represented on the SPF. The focus on new schools has created considerable capacity within DPS. If considered separately, these new schools alone would constitute the 19th largest district in the state.

[7] As SPF data only begins in Grade 3, there are several schools serving elementary grades for whom their first year listed on the SPF is not the first year of operations, as well as some new elementary schools yet to serve 3rd grade students who are not included on the SPF at all.

New schools have made a concerted positive impact on DPS. By 2013 one of every three schools initiated since 2009 met our quality benchmark of an SPF score of 70% or better. However what makes this achievement more remarkable is the far greater percentages of low-income students served by quality new schools. In 2013, quality schools initiated within the past five years had enrollment of almost two-thirds low-income students (65%). In contrast, quality continuing schools had enrollment comprised of less than half low-income students (45%).



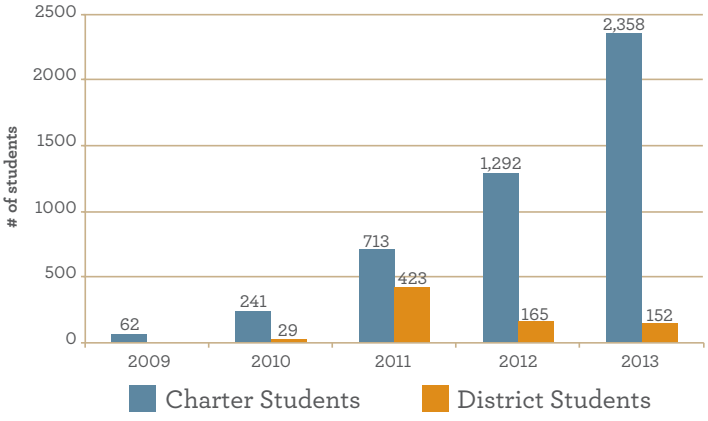
Any attempt to close the achievement gap of low-income students compared to their wealthier peers appears to rely heavily on generating quality new schools (compared to improving continuing schools). To best examine this strategy, it is helpful to look more closely at the specific characteristics of new schools.

New School Governance

Aggregated data for the quality of all new schools overlooks an important dimension: the distinction between a charter school and a district-operated school.

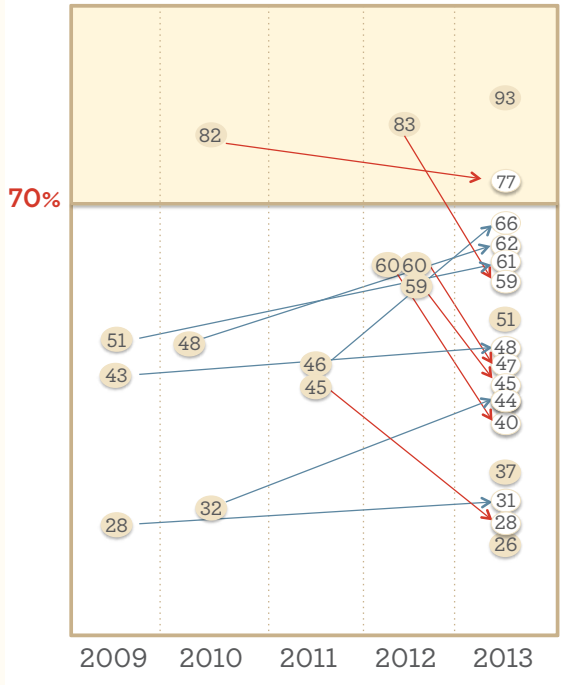
While new schools overall serve more low-income students, the difference between governance models is stark. Quality new charter schools serve 78% low-income students. Quality new district-operated schools serve just 18%. In 2013, the 11 quality new charter schools initiated since 2009 served in excess of 2,350 low-income students. In comparison, the two quality new district schools served a total of just 152.

LOW-INCOME STUDENTS IN QUALITY NEW SCHOOLS

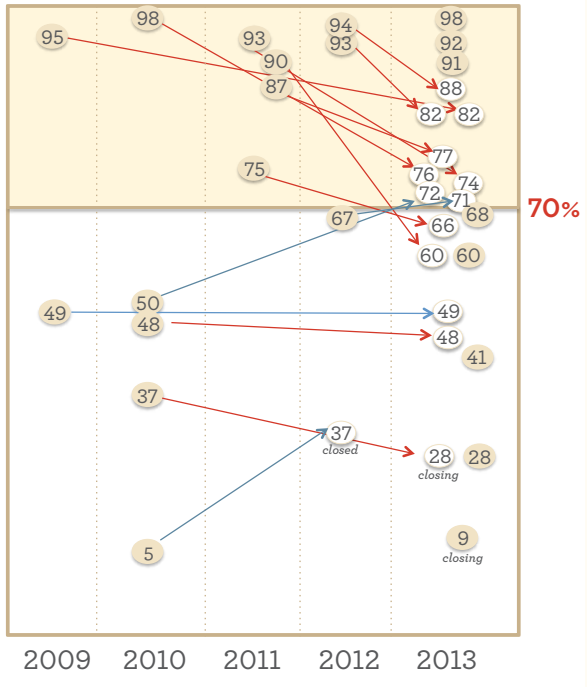


That is a remarkable distinction. To delve deeper, it is instructive to look at the trajectory of new charter and new district schools after they are initiated. Examine the migration of both new charters and new district schools from their initial year to 2013, based on their scores on the SPF:

NEW DISTRICT SCHOOLS



NEW CHARTER SCHOOLS



Solid circle indicates initial year of SPF data; progress to 2013 may not be linear.

* Graphs are not to scale.

Evident in both charts is that new schools with a high initial SPF score usually decline. Particularly with charter schools, which usually open just one grade at a time and can initially focus resources and attention on a smaller base of students, this should not be surprising.

However new schools run by the district generally both start below our quality threshold and predominantly remain there: 2013 results show a wide distribution of scores, with most schools in operation for more than one year clustered between 40% and 66%. Only three new district schools since 2009 initiated with a SPF score above 70%, and one has already faded. No school that started with a score below 70% has ever then risen above it.

New charter schools start on firmer footing — 11 were quality schools in their first year, and while most have declined from initial year scores in excess of 90%, most schools in operation for more than one year cluster between scores of 60% and 82%. Two schools that began below 70% have since improved to a level above it. It is critical to see if many of these schools can maintain their level of quality over longer periods of time.[8] However it both appears and stands to reason that it is far easier to remain a quality school than to transform into one.

"While the strategy of starting new schools is paying dividends for DPS, the success in creating quality schools — as well as serving low-income students within those schools — resides overwhelmingly with charters."

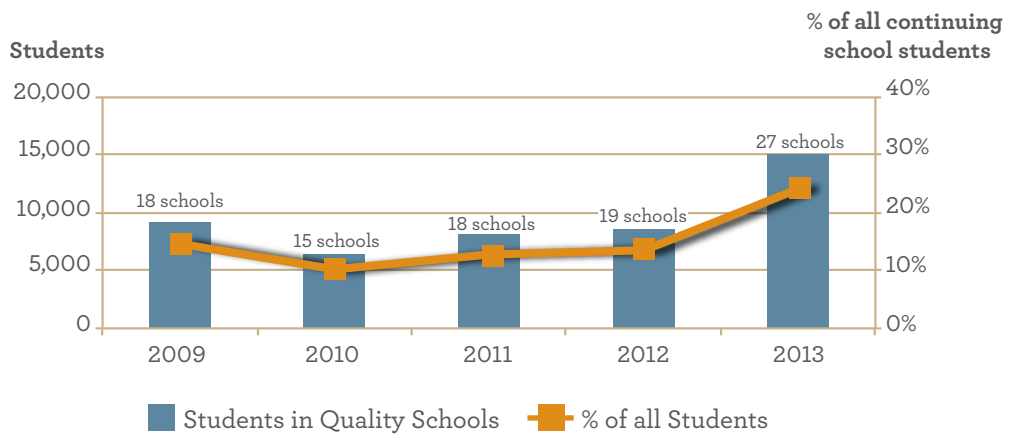
While the strategy of starting new schools is paying dividends for DPS, the success in creating quality schools — as well as serving low-income students within those schools — resides overwhelmingly with charters. Indeed, it is not clear that the new schools initiated and managed by DPS have had any meaningful impact on increasing the number of students — particularly those from low-income families — into quality schools.

[8] It is worth pointing out that the initial schools from the three major charter networks (DSST, STRIVE and KIPP), all in operation prior to 2009, remain quality schools in 2013 with SPF scores in excess of 80%.

III. Continuing Schools

The largest part of the DPS portfolio, the group of continuing schools comprises the 110 schools that are neither new nor closing. These continuing schools serve roughly 63,000 kids (about 80% of the students covered by the School Performance Framework). Of the 110 schools, 100 are run by the district, nine are charters, and one is a contract school. While a portfolio strategy can both weed out the poorest performing schools and inject fresh ideas and approaches with new ones, without the ability to create quality schools within the largest segment of the portfolio, the pace of district improvement is severely constrained. Critical to evaluating the district's efforts over the past five years is an examination of how these 110 schools have changed.

Again in aggregate, there has been considerable progress. The number of quality continuing schools has grown from 18 in 2009 (16% of all schools) to 27 in 2013 (25%), with a corresponding increase in students served:

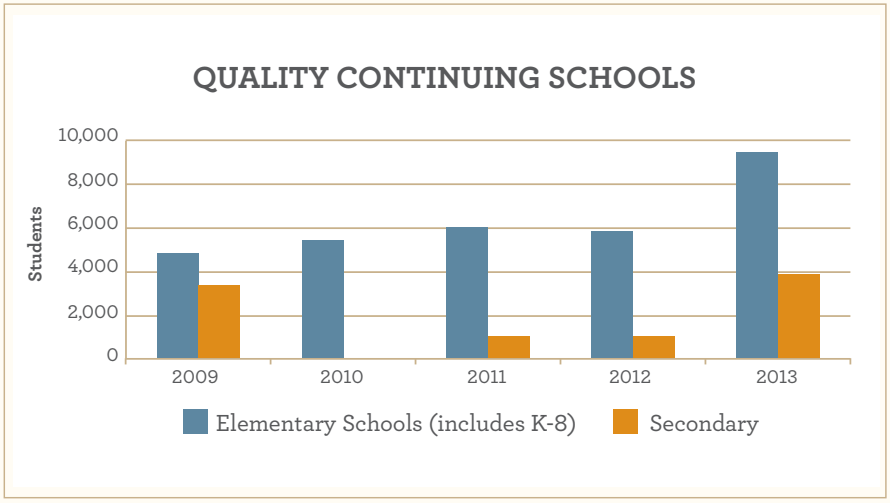


On first blush, this is good progress. However, breaking the aggregate numbers down into more specific detail reveals two substantial issues.

First, the improvement has been limited to the past year and thus is at a higher risk of evaporating. The difference between 2009 and 2012 is just one more quality continuing school and a decrease in the number of students served. From 2012 to 2013, an additional eight schools passed our quality threshold, including over 6,500 students. It remains to be seen if this single year is an outlier or trend.

Second is less apparent in the aggregated numbers, but likely more important: the improvements in continuing schools have almost entirely occurred in the elementary grade levels. The continuing schools that exclusively serve secondary grades have seen very little positive change. As mentioned previously, the decline in proficiency as students go through secondary grades is troubling, and quality secondary schools are probably the district's greatest need.

Eliminating the 10 charter and contract schools, and separating the 100 remaining continuing schools operated by DPS into those that predominantly serve elementary grades (K-5 and K-8), and those that serve secondary grades (6-8, 9-12 and 6-12), we see a substantial difference:



There are a total of 76 K-5 and K-8 continuing schools run by the district. The increase in quality in this group — again mostly limited to 2013 — has been so dramatic that there are over twice as many students in quality schools now than five years ago. This is substantial progress indeed, however its long-term impact is limited if these students are unable to also attend quality schools in the secondary grades.

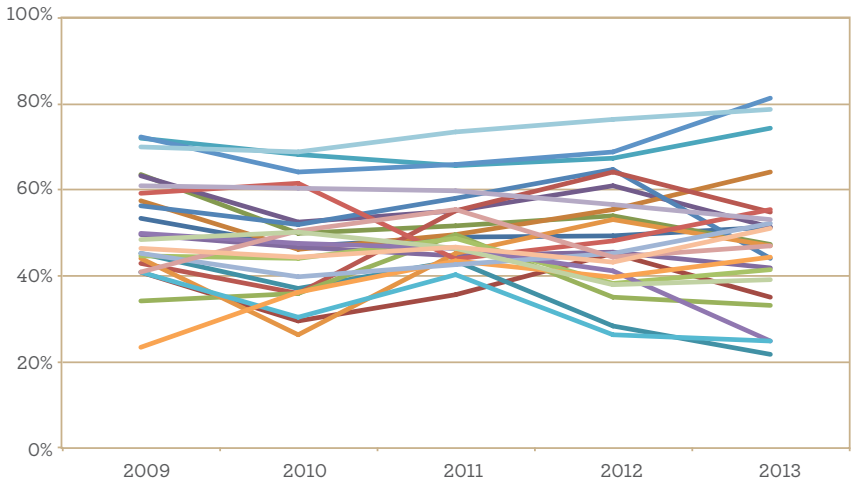
There are 24 district-run continuing schools that serve exclusively secondary grades. Over the past five years, not a single school in this group that has always scored over 70% on the SPF. In 2010 there was not a single secondary school in this group that met the quality criteria. One school has achieved our quality designation four of five years: Denver School of the Arts, a magnet school with selective admissions that serves just 15% low-income kids. In 2013, the other two quality schools were CEC (also a magnet school) and East High, which benefitted from the change in SPF criteria and a lack of rigor on proficiency metrics (for an in-depth look at East High, see Appendix A). Without East, the number of total students in quality continuing secondary schools would be just 1,485 — every single one of whom was admitted based on academic skill or promise in a competitive process.

In addition, quality continuing schools serving secondary grades enroll roughly one-third low-income students, or a total of just 1,386 students. If one subtracts East High, they serve just 521 low-income kids, a spectacularly small impact across an entire district.

Below is a graph of the performance of the entire set of 24 district-operated continuing secondary schools over the past five years.

DISTRICT OPERATED CONTINUING SECONDARY SCHOOLS

(SPF Score, 2009 – 2013)



There is no directional trend here: this is spaghetti. The range of scores has broadened slightly (from 49 percentage points to 60 percentage points), but there is no consistency. For every school that creeps up there is another that slips down. Indeed, median and mean scores for this school cohort have slightly declined over the past five years.[9] There is simply no evidence in the SPF data to believe that district-operated secondary schools are systematically improving.

[9] Median scores starting in 2009: 49%, 47%, 49%, 47%, 47%; mean scores: 51%, 47%, 51%, 50%, 48%.

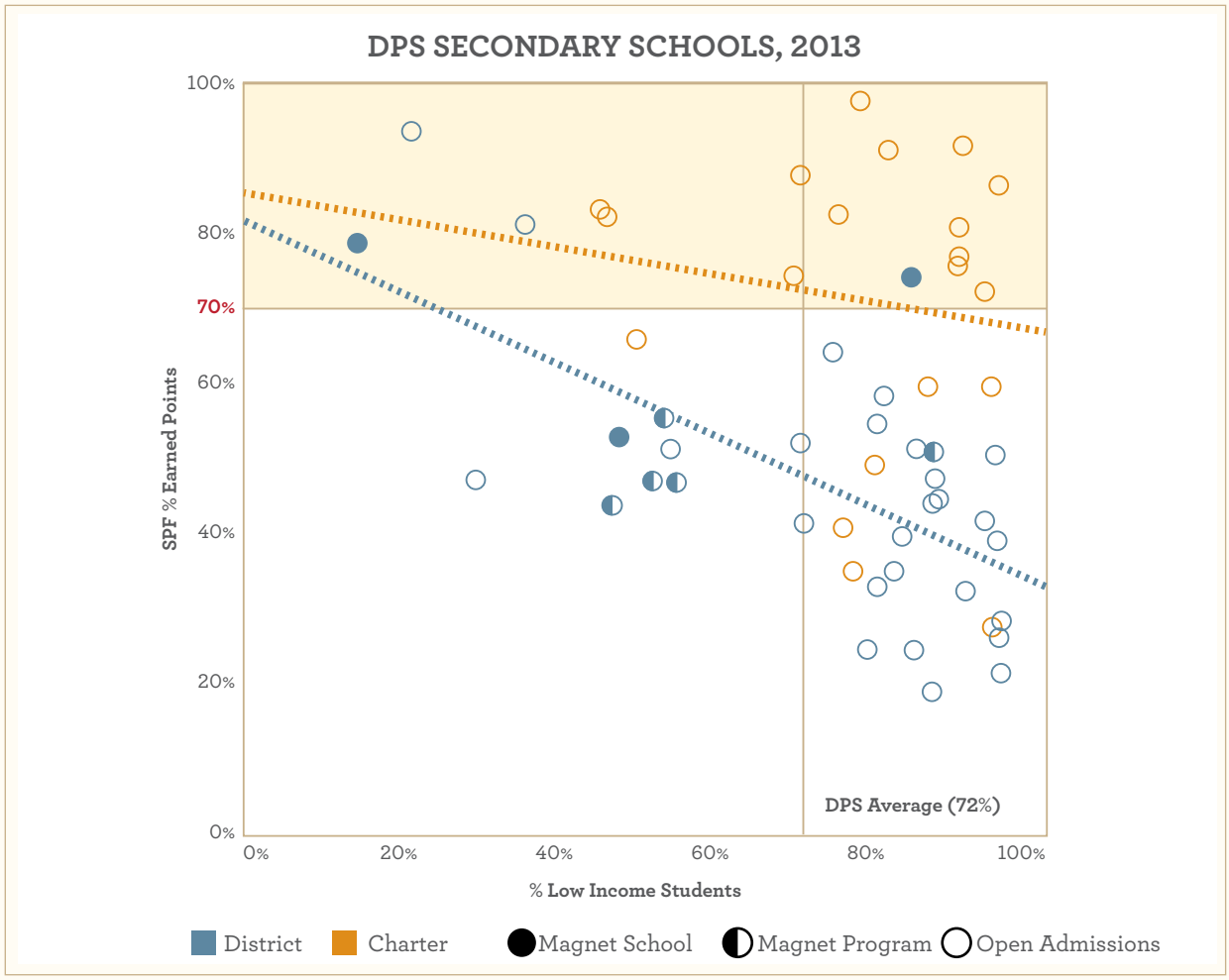
Secondary Schools Overall

The district's quandary for quality secondary grades is not limited to continuing schools — it exists within district-run new schools as well. The difficulties are two-fold: achievement and access.

First, DPS operates very few quality secondary schools. Indeed, in 2013, there were just four quality secondary schools under district governance out of 40 total. The four includes a school in its first year of operation, as well as East High.

Second and far worse: the district secondary schools that meet our quality distinction are not available to the average low-income student. Two of these schools are magnets and have selective admissions policies; the other two have low-income enrollment of 22% and 36% respectively – half or less of the DPS average.

Let's compare all DPS secondary schools in 2013, based on both their SPF score and the percentage of low-income students:



In secondary grades, the overwhelming majority of quality schools (the shaded area) are charters, all but two of whom serve a substantial majority of low-income kids. The scarcity of district-operated quality schools overall and particularly serving low-income kids is apparent.

Consider the trend lines for charter and district schools, which delineate the relationship between the SPF score and the percentage of low-income students by school. For schools run by the district, economic status is highly correlated with quality across all schools; in fact the only quality school with a low-income population equal or greater than the DPS average is a magnet school that selectively admits its students. However the correlation between economic status and quality, while not eliminated, is far less pronounced for charter schools, and the majority of quality charters have low-income populations above district averages.[10]

Put more simply, there is no quality district-operated secondary school open to all students with the exception of East High and its prodigious gaps in academic achievement. An average student in DPS, particularly if low-income, has virtually no chance of attending a quality secondary school run by the district. Their best chance is to enroll at one of the 13 charter secondary schools with a 2013 SPF score above 70%.

The inability of DPS to operate quality schools serving secondary grades either by opening new schools or by improving existing schools is deeply concerning. Indeed, the lack of progress in this area over the past five years should greatly temper the enthusiasm over the district's aggregated scores overall and raise serious questions about the efficacy of many of its policies. Without quality secondary schools, the district's ability to educate students for career and college success is virtually impossible.

[10] The P-value for district schools is <0.0001; for charter schools it is 0.5389.

Conclusion and Recommendations

What are the lessons of school performance in Denver over the past five years? First and foremost, more kids are attending quality schools, and we congratulate DPS for this increase and the gains in proficiency. The district, on aggregate and including all school types, is clearly improving and deserves ample credit for the activities that are succeeding.

However we must vigorously emphasize that this aggregated improvement cannot be seen as a blanket affirmation of all of the district's strategies. The decision to close poorly-performing schools of all types appears to be paying dividends and is especially encouraging for low-income students. Likewise the decision to encourage replication of the best charter schools has clearly led to positive results. But the district's attempts to open its own new schools, and particularly to improve its continuing schools serving secondary grades, have yielded remarkably little. These strategies, which compose the vast majority of the district's efforts, do not appear to have provided any meaningful return.

It was always unlikely for all DPS's myriad activities to perform equally well. In order for the district's overall upward trend to continue, it is imperative that DPS discriminate between the strategies bearing fruit and those that are barren. Indeed, the success the district is seeing in the area of its greatest need — improved academic outcomes for low-income students in secondary grades — is the direct result of charter schools where the district has the least amount of influence. The correct lesson here is one of increased district restraint, not intensified action.

Automatically continuing all strategies should be considered a sign of weakness and not strength. There is much to praise in the district's efforts, more so if DPS is able to shift its policies appropriately instead of simply continuing its current efforts in all areas.

Recommendations:

1. **Continue school closures, provided there are quality alternative options.** The apparent shift of low-income students from closing schools to quality schools is extremely encouraging. If this trend persists, DPS should continue to close chronically low-performing schools of all types, provided that they are authorizing sufficient quality new schools in the same geographic areas to accommodate displaced students.

2. **All new schools should go through the same authorizing process, under the same criteria.** The difference in student outcomes between new charter schools and new district schools is painfully obvious; however we are not convinced that this is solely due to a systematic difference in the governance model. We believe the different authorization processes make it likely that the less rigorous procedure for new district schools simply means that they have a lower bar, with subsequently lower results. All new schools, regardless of type, should go through the same authorization process under the same criteria.

3. **DPS needs to absorb replication lessons from charter networks.** DPS has been effusive that traditional schools can learn from high performing charters. It is now time for the district to swallow some of this same medicine and learn from the central offices at the charter school networks. A significant factor in the contribution of charter schools in Denver is the ability of the top networks to replicate successful schools. DPS needs to figure out how to replicate some of its best schools, especially magnet programs that have more qualified applicants than admissions (such as DSA and Polaris).

4. **Re-Examine innovation schools.** Our analysis, similar to other groups, saw little substantive difference in academic outcomes between innovation schools and other district-operated schools. DPS needs to reconsider the autonomy, authorization process, and expectations from innovation schools. There is ample opportunity to do things differently within DPS, but the innovation schools effort has been deeply disappointing in the singularity of both school models and results.

5. **Revamp the School Performance Framework.** The case of East High (see Appendix A) is ample illustration of some of the most serious flaws in the School Performance Framework, and the district is far too generous in its performance categories. The necessity of high expectations for all students is often made to justify changes at the school level. DPS should similarly embrace far higher expectations for school quality — particularly with proficiency goals and the achievement of low-income students.

6. **Admit error and learn from mistakes.** In the recent past, a divided school board too often mandated a political calculus where DPS was unwilling to admit mistakes or show weakness for fear of emboldening political opposition to its reforms. With the board elections in November of 2013, increased student achievement, and the demonstrated support of its constituents, DPS has an opportunity to clearly address both specific policies that are working and those that are not. DPS needs to move beyond the facile admission that it can do better and be clear about exactly where it should cease specific policies and empower others with better skills, particularly given its track record with secondary schools.

Appendix A:

Flaws in the SPF: The Curious Case of East High School

While performing our analysis, we noticed an outlier in 2013 where a significant jump in the number of students in quality schools can be attributed to a single facility: East High. For the past several years, East received SPF scores in the high 60% range. Then in 2013, East achieved a dramatic jump, scoring 81% on the SPF and becoming one of DPS's highest-rated schools. As East has one of Denver's largest student bodies (2013 enrollment of almost 2,400 students) this single shift had a large impact.

We initially believed this improvement would be cause for celebration — but there was a problem: East's student outcomes had not changed significantly, and academic improvement was not the fuel of their meteoric rise. Composite ACT scores improved just 0.4 and proficiency edged up 1.4%, while growth percentiles declined by 0.3.

EAST HIGH ACADEMIC COMPARISON

	2012	2013	+/-
ACT Composite	**21.4**	**21.8**	**0.4**
Proficiency			
Reading	77.3%	77.8%	0.5
Writing	59.8%	61.5%	1.7
Math	42.1%	44.0%	1.9
Average	**59.7%**	**61.1%**	**1.4**
Growth			
Reading	52	58	6
Writing	52	52	0
Math	55	48	-6
Average	**53.0**	**52.7**	**-0.3**

East's academic results did not cause their rapid increase in SPF score, what did?

The primary reason for East's rapid increase in scores was a change in the SPF scoring system for high schools. In 2012, East received just 13 of 24 points (54%) in categories involving college remediation. In 2013 college remediation data was eliminated entirely, which was a great benefit to East. This change had a rationale — remediation data was being released later and would not be available in time for the SPF, so rather than use the same data for two years in a row, DPS eliminated all college remediation data for 2013.

However, East's high score also reveals a major flaw within the SPF itself. East continues to be plagued by monumental proficiency gaps by both income and ethnicity. In 2013, East had a 36 percentage point gap by income (74% to 38%), and a 41 percentage point gap by ethnicity (white students 81%, black 36%%, Hispanic 44%). These gaps are two to three times as large as other quality high schools.[11]

[11] The other open enrollment high schools with 2013 SPF scores above 70% had a income gap of 12 percentage points and an ethnicity gap of between 18 and 25 percentage points.

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Flaws in the SPF: The Curious Case of East High School

Yet under current SPF criteria, high schools receive maximum points if they achieve proficiency rates in math of just 20% of students. Other subjects are not much better: 40% proficiency is the threshold in writing and 50% in reading. Not one level or subject has a proficiency goal above 50%. Fewer than one in four (23%) of minority students at East were proficient in math (including just 17% of black students), and yet the school received the highest possible score in this category on the SPF.

The expectation on the SPF is that high schools should have just one in five students proficient in math, and no more than one of every two students proficient in any subject at all. These low proficiency standards are appalling and indefensible.

The elimination of college remediation data is hopefully a one-year anomaly; however the low proficiency bar and overall minimum standards on the SPF is a persistent problem. The two are not separate issues: clearly the low proficiency of many of East's students link directly to the need for college remediation. Their 2013 SPF score glosses over a considerable failure: East is graduating far too many kids — particularly those who have the greatest challenges — who are severely unprepared for the demands of either college or career.

The paucity of good high school options in DPS means that East is the only traditional high school in 2013 that met our quality distinction. However given the difficulties above, we cannot, in good conscience, concur with DPS's belief that East is a distinguished school. Our belief is that quality schools are those in which every child is equally likely to achieve, regardless of ethnicity or family income; diversity must extend beyond enrollment to student achievement.

Appendix B:

List of Schools

School	Grades	Category	Type	SPF Score 2009	2010	2011	2012	2013
Abraham Lincoln High School	H	Continuing	District	50%	47%	45%	45%	42%
Academia Ana Marie Sandoval Elem	E	Continuing	District	59%	60%	72%	68%	59%
Amesse Elementary School	E	Continuing	District	49%	38%	40%	45%	26%
Asbury Elementary School	E	Continuing	District	75%	60%	74%	74%	75%
Ashley Elementary School	E	Continuing	District	46%	49%	38%	28%	44%
Barnum Elementary School	E	Continuing	District	46%	49%	54%	53%	51%
Barrett Elementary School	E	Continuing	District	31%	38%	41%	29%	41%
Bradley Elementary School	E	Continuing	District	62%	65%	71%	78%	82%
Bromwell Elementary School	E	Continuing	District	87%	80%	80%	76%	78%
Brown Elementary School	E	Continuing	District	48%	60%	52%	46%	62%
Bruce Randolph School	6 to 12	Continuing	District	48%	50%	46%	38%	39%
Bryant Webster Dual Language	K to 8	Continuing	District	68%	61%	54%	59%	55%
Carson Elementary School	E	Continuing	District	59%	57%	78%	78%	76%
Castro Elementary School	E	Continuing	District	52%	51%	61%	45%	38%
CEC Middle College of Denver	H	Continuing	District	72%	68%	66%	67%	74%
Centennial Elementary School	K to 8	Continuing	District	37%	36%	40%	31%	21%
Cesar Chavez Academy	K to 8	New	Charter		48%	38%	38%	45%
Cheltenham Elementary School	E	Continuing	District	30%	32%	40%	43%	33%
Cole Arts and Science Academy	K to 8	New	District	43%	48%	55%	51%	48%
Colfax Elementary School	E	Continuing	District	36%	48%	54%	45%	49%
College View Elementary School	E	Continuing	District	55%	46%	39%	41%	49%
Collegiate Prep Academy	H	New	District				60%	40%
Columbian Elementary School	E	Continuing	District	48%	46%	39%	40%	52%
Columbine Elementary School	E	Continuing	District	52%	58%	42%	25%	17%
Community Challenges	6 to 12	Closed	Charter	45%				
Cory Elementary School	E	Continuing	District	82%	84%	89%	83%	82%
Cowell Elementary School	E	Continuing	District	54%	69%	54%	49%	50%
DCIS	6 to 12	Continuing	District	61%	60%	60%	57%	53%
DCIS at Ford	E	New	District					37%
DCIS at Montbello	6 to 12	New	District				60%	47%
Denison Montessori School	E	Continuing	District	62%	67%	69%	69%	75%
Denver Arts and Technology	K to 8	Closed	Charter	39%				
Denver Green School	K to 8	New	District			46%	56%	66%
Denver Language School	E	New	Charter					68%

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School	Grades	Category	Type	SPF Score 2009	2010	2011	2012	2013
Denver Online High School	H	Continuing	District	44%	26%	45%	53%	47%
Denver School of the Arts	6 to 12	Continuing	District	70%	69%	73%	76%	79%
Denver Venture School	H	New	Charter	49%	28%			
Dora Moore School	K to 8	Continuing	District	44%	42%	60%	59%	56%
Doull Elementary School	E	Continuing	District	50%	61%	69%	72%	69%
DSST College View MS	M	New	Charter					98%
DSST: Cole MS	M	New	Charter				93%	82%
DSST: GVR HS	H	New	Charter				94%	88%
DSST: GVR MS	M	New	Charter			93%	74%	74%
DSST: Stapleton HS	H	Continuing	Charter	95%	84%	79%	80%	83%
DSST: Stapleton MS	M	New	Charter	95%	92%	87%	76%	82%
Eagleton Elementary School	E	Continuing	District	29%	47%	58%	61%	44%
East High School	H	Continuing	District	72%	64%	66%	69%	81%
Edison Elementary School	E	Continuing	District	40%	52%	53%	56%	59%
Ellis Elementary School	E	Continuing	District	47%	57%	54%	59%	58%
Envision Leadership Prep	M	New/Closed	Charter		37%			
Escuela Tlatelolco	K to 12	Continuing	Contract	44%	47%	34%	18%	18%
Fairmont Elementary School	K to 8	Closing	District	39%	37%	40%	40%	37%
Fairview Elementary School	E	Continuing	District	42%	45%	38%	40%	33%
Farrell B. Howell School	K to 8	Continuing	District	47%	59%	58%	49%	49%
Florida Pitt Waller School	K to 8	Continuing	District	49%	39%	47%	46%	51%
Force Elementary School	E	Continuing	District	68%	72%	61%	66%	73%
Ford Elementary	E	Closed	District	35%	25%	26%	28%	
Garden Place Elementary School	E	Continuing	District	45%	58%	67%	50%	51%
George Washington High School	H	Continuing	District	59%	61%	44%	48%	55%
Gilpin Montessori Public School	E	Continuing	District	32%	36%	45%	27%	28%
Girls Athletic Leadership School	M	New	Charter			75%	57%	66%
Godsman Elementary School	E	Continuing	District	41%	44%	46%	54%	62%
Goldrick Elementary School	E	Continuing	District	59%	62%	46%	39%	46%
Grant Beacon	M	Continuing	District	53%	47%	49%	49%	51%
Grant Ranch Elementary	K to 8	Continuing	District	69%	63%	66%	58%	57%
Green Valley Ranch	E	Continuing	District	32%	33%	52%	64%	84%
Greenlee Elementary School	E	Continuing	District	22%	25%	41%	26%	25%
Greenwood Academy	K to 8	Continuing	District	58%	50%	57%	64%	52%

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School	Grades	Category	Type	SPF Score 2009	2010	2011	2012	2013
Gust Elementary School	E	Continuing	District	57%	55%	54%	63%	74%
Hallett Fundamental Academy	E	New	District		48%	71%	69%	62%
Hamilton Middle School	M	Continuing	District	64%	50%	52%	54%	47%
Harrington Elementary School	E	Continuing	District	53%	48%	46%	62%	40%
Henry World School	M	Continuing	District	41%	29%	36%	45%	35%
High-Tech Early College	H	New	District				83%	59%
Highline Academy	K to 8	Continuing	Charter	67%	67%	65%	73%	79%
Hill Campus of Arts and Sciences	M	Continuing	District	63%	53%	55%	61%	51%
Holm Elementary School	E	Continuing	District	63%	64%	57%	61%	65%
John F. Kennedy High School	H	Continuing	District	45%	44%	49%	38%	41%
Johnson Elementary School	E	Continuing	District	45%	58%	41%	25%	43%
Kaiser Elementary School	E	Continuing	District	38%	45%	41%	42%	54%
Kepner Middle School	M	Continuing	District	45%	37%	44%	28%	22%
KIPP Denver Collegiate High School	H	New	Charter		50%	40%	62%	72%
KIPP Montbello College Prep	E	New	Charter				67%	71%
KIPP Sunshine Peak Academy	M	Continuing	Charter	68%	69%	69%	82%	86%
Knapp Elementary School	E	Continuing	District	47%	56%	65%	67%	63%
Knight Academy	E	Closed	District	26%				
Kunsmiller Creative Arts Academy	K to 12	New	District		32%	42%	47%	44%
Kunsmiller Middle School	M	Closed	District	39%				
Lake International School	M	New	District			45%	40%	28%
Lake Middle School	M	Closed	District	23%	35%	50%	41%	
Lena Archuleta Elementary	E	Continuing	District	65%	65%	67%	56%	56%
Lincoln Elementary School	E	Continuing	District	83%	80%	84%	83%	86%
Lowry Elementary	E	Continuing	District	56%	46%	54%	44%	58%
Manny Martinez Middle School	M	New/Closed	Charter		5%	14%	33%	
Manual High School	H	Continuing	District	50%	47%	46%	41%	25%
Marrama Elementary School	E	Continuing	District	48%	53%	67%	58%	51%
Martin Luther King, Jr. Early College	6 to 12	Continuing	District	47%	44%	47%	43%	51%
Math & Science Leadership Academy	E	New	Contract				41%	46%
Maxwell Elementary School	E	Continuing	District	53%	44%	33%	36%	34%
McAuliffe International School	M	New	District					93%
McGlone Elementary School	E	Continuing	District	33%	35%	46%	59%	65%
McKinley-Thatcher Elementary School	E	Continuing	District	77%	43%	46%	62%	72%

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School	Grades	Category	Type	SPF Score 2009	2010	2011	2012	2013
McMeen Elementary School	E	Continuing	District	78%	81%	80%	82%	85%
Merrill Middle School	M	Continuing	District	57%	46%	50%	55%	64%
Montbello High School	H	Continuing	District	41%	30%	40%	26%	25%
Montclair Elementary School	E	Continuing	District	57%	67%	67%	72%	66%
Morey Middle School	M	Continuing	District	56%	52%	58%	65%	44%
Munroe Elementary School	E	Continuing	District	32%	39%	41%	46%	36%
Newlon Elementary School	E	Continuing	District	41%	58%	56%	61%	77%
Noel Community Arts School	6 to 12	New	District				59%	45%
North High School	H	Continuing	District	23%	36%	43%	40%	44%
Northeast Academy Charter School	K to 8	Closing	Charter	29%	33%	25%	20%	7%
Oakland Elementary School	E	Closed	District	29%	28%	35%	28%	
Odyssey Charter School	K to 8	Continuing	Charter	70%	72%	71%	65%	59%
Omar D. Blair	K to 8	Continuing	Charter	58%	68%	69%	63%	63%
Palmer Elementary School	E	Continuing	District	63%	67%	71%	72%	60%
Park Hill Elementary	E	Continuing	District	62%	69%	70%	68%	66%
Philips Elementary School	E	Closed	District	17%				
Pioneer Charter School	K to 8	Continuing	Charter	43%	59%	44%	52%	50%
Place Bridge Academy	K to 8	New	District	51%	45%	47%	59%	61%
Polaris at Ebert	E	Continuing	District	89%	88%	89%	93%	95%
PS1 Charter School	6 to 12	Closed	Charter	31%	22%	20%		
Rachel Noel Middle School	M	Closing	District	30%	29%	28%	17%	19%
Rishel Middle School	M	Closed	District	38%	22%	31%		
Sabin World School	E	Continuing	District	47%	72%	67%	64%	63%
Samuels Elementary School	E	Continuing	District	70%	51%	57%	65%	65%
Schenck Elementary School	E	Continuing	District	37%	43%	29%	42%	45%
Schmitt Elementary School	E	Continuing	District	57%	43%	42%	51%	49%
Sims Fayola Academy	6 to 12	New	Charter					41%
Skinner Middle School	M	Continuing	District	43%	36%	55%	64%	55%
Skyland Community High School	H	Closed	Charter	24%				
Slavens Elementary School	K to 8	Continuing	District	87%	85%	86%	91%	89%
Smiley Middle School	M	Continuing	District	34%	36%	50%	35%	33%
Smith Renaissance School	E	Continuing	District	29%	37%	33%	25%	55%
SOAR at GVR	E	New	Charter					28%
SOAR at Oakland	E	New/Closing	Charter					9%

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School	Grades	Category	Type	SPF Score 2009	2010	2011	2012	2013
South High School	H	Continuing	District	45%	40%	43%	45%	52%
Southmoor Elementary School	E	Continuing	District	69%	73%	58%	60%	72%
Southwest Early College	H	Continuing	Charter	53%	45%	48%	38%	35%
Steck Elementary School	E	Continuing	District	90%	91%	96%	95%	89%
Stedman Elementary School	E	Continuing	District	67%	66%	54%	50%	49%
Steele Elementary School	E	Continuing	District	74%	70%	67%	68%	70%
STRIVE Prep: Federal	M	Continuing	Charter	91%	88%	83%	84%	81%
STRIVE Prep: GVR	M	New	Charter					91%
STRIVE Prep: Lake	M	New	Charter			90%	81%	60%
STRIVE Prep: Montbello	M	New	Charter					92%
STRIVE Prep: SMART Academy	H	New	Charter					60%
STRIVE Prep: Sunnyside	M	New	Charter			87%	88%	77%
STRIVE Prep: Westwood	M	New	Charter		98%	90%	79%	76%
Swansea Elementary School	E	Continuing	District	43%	40%	44%	48%	54%
Teller Elementary School	E	Continuing	District	67%	48%	42%	46%	60%
Thomas Jefferson High School	H	Continuing	District	41%	51%	55%	44%	47%
Traylor Elementary School	E	Continuing	District	63%	49%	52%	53%	52%
Trevista	K to 8	New	District	28%	36%	33%	34%	31%
University Park Elementary School	E	Continuing	District	84%	79%	83%	88%	84%
Valdez Elementary School	E	Continuing	District	41%	49%	55%	55%	53%
Valverde Elementary School	E	Continuing	District	62%	50%	35%	43%	35%
Venture Prep High School	H	Continuing	Charter				52%	49%
Venture Prep Middle School	M	New/Closing	Charter			32%	30%	28%
West Generations	6 to 12	New	District					26%
West High School	H	Closing	District	27%	35%	33%	26%	33%
West Leadership	6 to 12	New	District					51%
Westerly Creek Elementary	E	New	District		82%	73%	75%	77%
Whittier Elementary School	K to 8	Continuing	District	47%	40%	51%	55%	51%
William (Bill) R. Roberts School	K to 8	Continuing	District	55%	69%	63%	65%	70%
Wyatt Edison	K to 8	Continuing	Charter	60%	57%	50%	34%	20%

Note: Beach Court Elementary School was not included in the analysis given the DPS investigation and invalidated CSAP scores prior to 2012.

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