

AURORA PUBLIC SCHOOLS MARCH 2017

Introduction

In 2015, A+ Colorado and a coalition of Aurora-based community groups came together to inform the Aurora community and offer recommendations in the report *If Not Now: Transforming Aurora Public Schools from Failing to Great.* At the time, we called for drastic change to dramatically improve student achievement and postsecondary readiness. Nearly two years later, many measures of student achievement have remained unchanged.

Last year, more than 2,600 of the 3,200 APS 3rd graders were not ready to move onto fourth grade level reading and writing content. Time is up for APS, Aurora's students can no longer wait for improvement; it is time they all have access to an education that prepares them for college and career.

2016-2017 is Aurora Public Schools' last school year to improve before facing state interventions aimed at increasing student achievement. The stakes are high for this inner-ring suburban district.

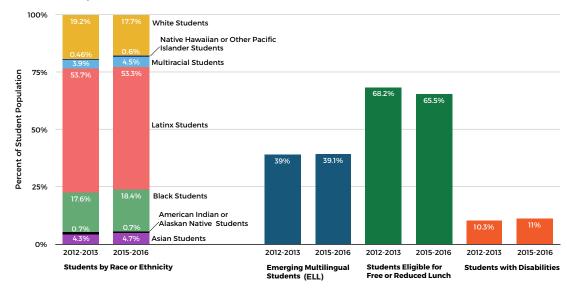
Aurora's student achievement, as measured by state standardized tests, high school graduation rates, and ACT scores, has remained stagnant over the past 5 years. In this report, we pulled out some of the outliers: schools that showed excellent achievement and growth as well as schools that have a lot of room for improvement if they want to offer Aurora students the high quality education they deserve.

We repeat the call we made in 2015: change--drastic change--is imperative. First, **let's start** with the facts.

Who are APS Students?

There are 135 home languages spoken across the district. More than half of Aurora's students are Latinx and 65% of students qualify for free or reduced price lunch. Since 2013, the most notable change in demographics is a 3% decrease in students eligible for free or reduced price lunch.

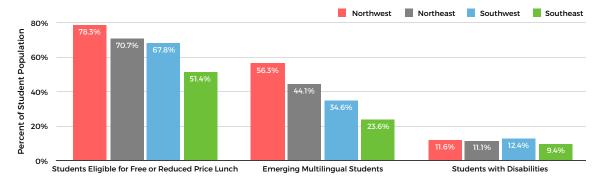
Figure 1: Aurora Public School Student Demographics (SY 2012-13 to SY 2015-16)



¹ The Colorado Education Accountability Act (SB 09-163) mandates that after five consecutive years at a rating of Turnaround or Priority Improvement, a school or district faces intervention by the State Board of Education. The intervention options are as follows: change in management, charter school conversion, innovation status or innovation zone, school closure, or district reorganization. If Aurora Public Schools' District Performance Framework rating is Priority Improvement or Turnaround based on this year's data (rating will be released in Fall 2017), then they will face these interventions during the 2018-2019 school year.

Aurora is an expansive district with distinct communities. Separating the district into regions helps to better understand the population Aurora schools serve. The Northwest, Northeast, Southwest, and Southeast quadrants of the district explored below are based on what Aurora Public School's planning department uses internally. For a maps of schools by quadrant, see Appendix A.

Figure 2: Eligibility for Free and Reduced Price Lunch and Students Receiving Specialized Instructional Programming by APS Region (SY 2015-16)

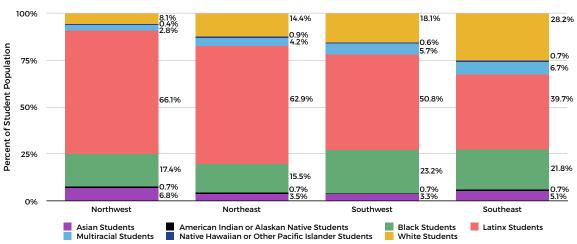


Northwest Aurora has the highest proportion of student eligible for free or reduced price lunch and the highest proportion of emerging multilingual students (ELL). In the Northwest quadrant, there was a notable increase in both the Asian and Black student populations, as well as in the proportion of students with disabilities. The Southeast quadrant saw a 3 percentage point increase in the proportion of the student population who identify as Latinx, at the same time that the Northwest saw nearly a 2 percentage point decrease.

Across the district there have been relatively large declines in both the percent of students receiving free or reduced price lunch and in the percent of white students. The exception here is that the Southeastern quadrant saw a 2.3 percentage point increase in its proportion of students receiving free or reduced price lunch.

The distinct challenges and opportunities in each part of the Aurora community should help both district leadership and community members better understand how best to align resources and advocacy to serve students.

Figure 3: Race and Ethnicity of Aurora Public Schools Students by Region (SY 2015-16)

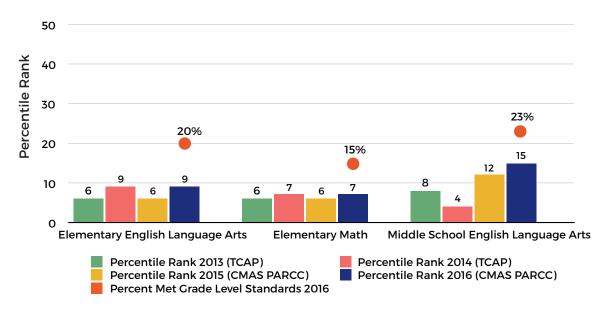


How has APS Performance Changed Over Time?

Each year since 1997, Colorado has administered a standardized summative assessment as a way of understanding what students know. In shifting assessments from TCAP to the more rigorous CMAS PARCC in 2015, historical performance on the standardized tests were no longer directly comparable. As a way to understand how students have been doing in

districts and schools over the past few years amidst this assessment change, A+ conducted an analysis that compares how students in districts around the state did on the assessment relative to students in other districts in the state. This analysis then compares the relative performance of districts over time. For more on the methodology, see Appendix B.

Figure 4: Aurora Public Schools' Relative Performance on Core Academic Assessments (2013-2016)



At the district level, Aurora has seen flat relative performance in both Elementary English Language Arts (ELA) and Elementary Math as measured by TCAP and CMAS PARCC. Elementary school is the foundation for the rest of a student's educational career. The fact that only 1 out of 5 APS elementary school students can read and write at grade level is unacceptable.

The percentile rank analysis indicates that Middle School ELA has seen some relative improvement. Even so, only 1 out of every 5 APS middle school students can read and write on grade level. Low performance at the elementary and middle school level demonstrates the need for district-wide

changes, and support that will allow teachers and school leaders to innovate. The recommendations at the end of this report provide some of our ideas for making those changes.

APS families, community members, and state leaders have made a clear call for Aurora to take action. The urgency of the accountability clock did not sneak up on the district. They are entering year five. That is five years (four under Superintendent Munn's leadership), that the district has had to define the root causes of low performance, implement strategies, and get results. The stagnant percentile rank (in the bottom 10-15% of the state) does not lend much confidence to the current improvement policies.

A+ conducted a similar analysis at the school level, understanding how students performed in schools relative to other schools in 2013-2016 on TCAP and CMAS PARCC respectively. The schools with the biggest improvement relative to all other schools in Colorado are shown in Figure 5.

Murphy Creek K-8, Vista PEAK P-8 Exploratory, and Peoria Elementary School are the top 3 schools for increases in Elementary ELA and Elementary Math performance. The large increases mean that these schools might have some interesting lessons to share with the district about implementing changes that improve student outcomes. APS should also look outside the district for schools that successfully serve similar student populations.

Figure 6 explores Aurora's top performing schools. Opportunities to attend a top performing school in Aurora are not evenly distributed across the district. The top performing school for Elementary School ELA, Elementary School Math, and Middle School ELA is Aurora Quest K-8, which has some of the highest relative performance in the state of Colorado. Aurora Quest is a gifted magnet school that requires an admissions test. The other three schools that top the APS percentile rank chart (Murphy Creek K-8, Dalton Elementary School, and Aurora Frontier K-8), are all in the Southeastern quadrant of the district (see Appendix A for a map of APS quadrants). Access to a top performing school requires a home in the Southeastern part of the district or filling out an application.

Figure 5: APS Schools with the Biggest Improvements in Relative Performance (2013-2016)

Elementary English Language Arts

Percentile Ranks 2013 2014 2015 2016 Murphy Creek K-8 School 32 48 63 60 Lotus School for Excellence 6 24 24 22 Peoria Elementary School 8 8 20 22

Elementary Math

| | Percentile Ranks | | | |
|----------------------------|------------------|------|------|------|
| | 2013 | 2014 | 2015 | 2016 |
| Vista PEAK P-8 Exploratory | 7 | 12 | 13 | 33 |
| Peoria Elementary School | 8 | 14 | 10 | 33 |
| Murphy Creek K-8 School | 30 | 38 | 64 | 54 |

Middle School English Language Arts

| | Percentile Ranks | | | |
|-------------------------|------------------|------|------|------|
| | 2013 | 2014 | 2015 | 2016 |
| Murphy Creek K-8 School | 46 | 51 | 61 | 83 |
| Clyde Miller K-8 | 21 | 19 | 43 | 52 |
| Boston P-8 School | 2 | 2 | 4 | 28 |

Figure 6: APS Schools with the Best Academic Performance Relative to Other Colorado Schools (2016)

Elementary English Language Arts

| School Name | 2016 Percentile Rank |
|-------------------------|----------------------|
| Aurora Quest K-8 | 100 |
| Murphy Creek K-8 School | 60 |
| Aurora Frontier K-8 | 59 |

Elementary Math

| School Name | 2016 Percentile Rank |
|--------------------------|----------------------|
| Aurora Quest K-8 | 100 |
| Murphy Creek K-8 School | 54 |
| Dalton Elementary School | 50 |

Middle Schoool English Language Arts

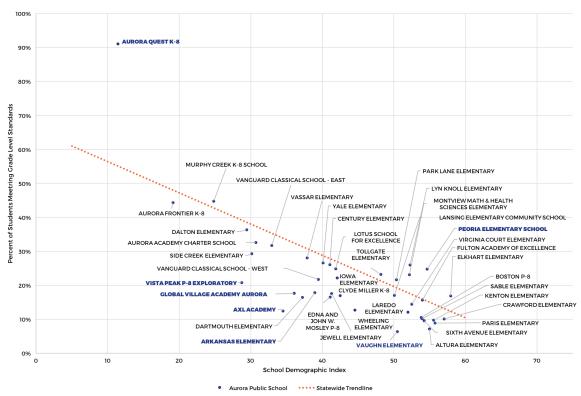
| School Name | 2016 Percentile Rank |
|-------------------------|----------------------|
| Aurora Quest K-8 | 99 |
| Murphy Creek K-8 School | 83 |
| Aurora Frontier K-8 | 75 |

How are APS Schools Doing Compared to Similar Schools?

A+ Colorado is particularly committed to understanding how schools and districts are serving groups of students who have historically been underserved by the education system. Yet the Colorado Department of Education has not yet released information about achievement on the 2016 CMAS PARCC assessment for different student groups. As

a proxy, A+ created an analysis to compare performance in schools serving similar student populations including students eligible for free or reduced price lunch, emerging multilingual students (ELL), students receiving special education services, and the school's mobility rate. For more on the methodology, see Appendix C.

Figure 7: APS School Performance in Elementary English Language Arts Compared to Schools with Similar Student Demographics (2016)



Note 1: Blue bolded schools are Outliers relative to schools across the state with similar demographics. See Appendix C for selection criteria.

Note 2: Fletcher Community School is not plotted because all data from the school was masked due to suppression rules from the Colorado Department of Education.

Comparing schools with similar demographics in these ways helps us recognize first and foremost that we are far from achieving educational equity. Unfortunately, the clear relationship between higher proportions of each of the populations listed above and lower student achievement are not unique to Aurora. We see these patterns across Colorado districts and across the country.

APS should look to schools like Peoria Elementary that outperform schools with similar student populations to find out what lessons they can learn from those school leaders, teachers, families, and support staff about what helps them succeed.

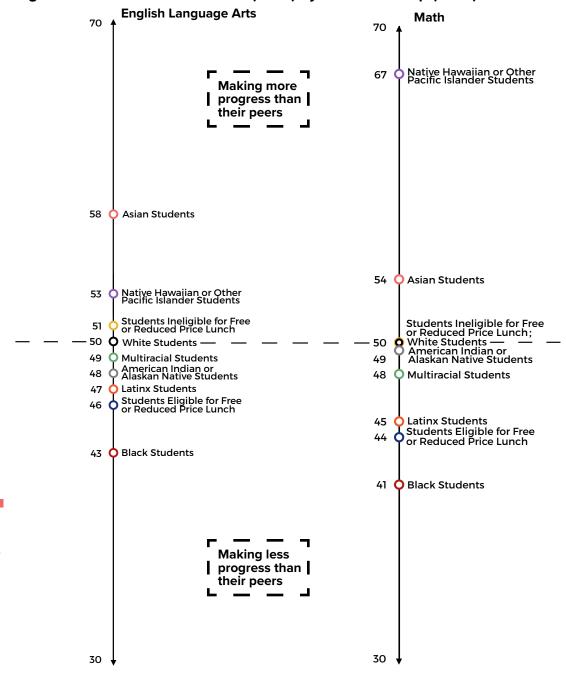
Demographics should not be destiny. Districts that serve similar student populations, such as Denver and Harrison have higher rates of students reading, writing, and doing math at grade level than APS. There is no need to reinvent the wheel. The district should look to examples within the district as well as examples outside of the district to find strategies that will lead to success for all kids.

How Much are Students Learning?

Student Growth, as calculated by the Colorado Growth Model, looks at how students are making progress year over year compared to their "academic peers." This measure looks at students' learning progress regardless of whether they are below, at, or well above grade level.

In APS, Black students, Latinx students, Multiracial students, and students qualifying for free or reduced price lunch have median growth percentiles (MGPs) below 50, meaning that they grow less than over half of their academic peers. In a district like Aurora, where few students are meeting grade level expectations, it is disheartening to see that low income students and students of color are falling behind their academic peers.

Figure 8: APS Academic Growth (MGP) by Student Group (2016)



To calculate Growth, a student's performance on the test is compared to her "academic peers." Academic peers are other students who had the same test score the previous year. Based on that comparison, the state calculates each individual student's growth percentile. Her student growth percentile shows whether she mastered more or less content than this group of students. The median growth percentile is the average growth percentile of all students

within the school or district.

At the school-level, Boston P-8 had the highest median growth percentile (MGP) in English Language Arts for students eligible for free or reduced priced lunch. This, along with high MGPs for Black and Asian students make Boston a school to watch. Boston is in its first year as an innovation school and may provide some insight into effective planning and implementation of innovation as a turnaround strategy. Columbia Middle School demonstrated high MGPs for both students

eligible and students ineligible for free or reduced price lunch. Columbia also shows up as having high MGPs for multiple racial/ethnic student groups.

Aurora Quest K-8's students who qualify for free and reduced price lunch had a higher math MGP than students who did not qualify for free or reduced price lunch. It is rare to find a school where this is the case and it could indicate that Aurora Quest is providing an education that is closing the opportunity gap.

Figure 9: APS Elementary and Middle Schools with the Highest Growth (MGP) (2016)

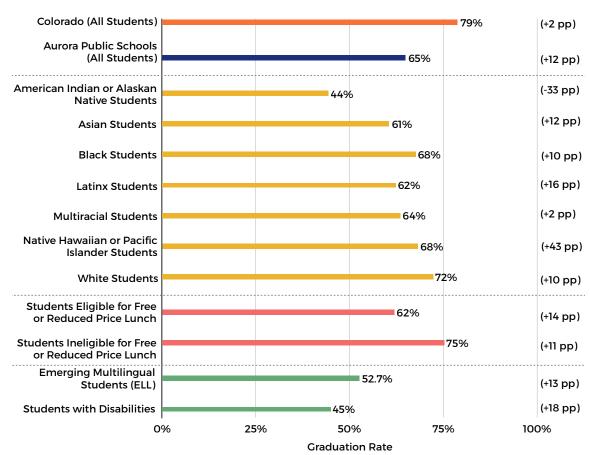
| (2016) | English Language Arts | Math | | |
|--|--|---|--|--|
| Students Ineligible for Free or Reduced Price Lunch | Murphy Creek K-8 (79) Tollgate Elementary (67) Columbia Middle (65) Aurora Quest K-8 (65) | Yale Elementary (85) Murphy Creek K-8 (72) Aurora Quest K-8 (71) | | |
| Students Eligible for Free or Reduced Price Lunch | Boston P-8 (70) Columbia Middle (66) Murphy Creek K-8 (65) | Aurora Quest K-8 (77) Yale Elementary (70) Elkhart Elementary (62.5) | | |
| Asian Students | Columbia Middle (77) Boston P-8 (76) Aurora Frontier K-8 (76) Aurora Hill Middle (76) | Aurora Frontier K-8 (77) Aurora Quest K-8 (75) Crawford Elementary (64.5) | | |
| Black Students | Boston P-8 (76) Murphy Creek K-8 (66) Aurora Quest K-8 (60) | Aurora Quest K-8 (73) Boston P-8 (73) Jewell Elementary (59) | | |
| Latinx Students | Murphy Creek K-8 (69) Columbia Middle (69) Century Elementary (67) | Yale Elementary (82) Aurora Quest K-8 (65) Murphy Creek K-8 (64) Elkhart Elementary (64) | | |
| Multiracial Students | Murphy Creek K-8 School (70) Aurora Quest K-8 (63) East Middle (62) | Murphy Creek K-8 (72) Vista Peak P-8 (64.5) Columbia Middle (50) | | |
| White Students | Murphy Creek K-8 (75.5) Yale Elementary (72) Columbia Middle (65) Aurora Quest K-8 (65) | Murphy Creek K-8 (74) Aurora Quest K-8 (72) Yale Elementary (66) | | |

Are APS Students Ready for What Comes Next?

A high quality public education prepares students for college or career. Over the past 4 years, the high school graduation rates in Aurora have increased for all student groups. High school diplomas matter: in 2015, the unemployment rate for Coloradans with less than high school degree was 6.7%. Compare this to the unemployment rate for Coloradans with a high school degree, 5.7%, and the

unemployment rate for Coloradans with a Bachelor's degree or more, 2.2%.³ A high school diploma has a measurable impact on a student's career trajectory and it is great to see Aurora catching up to the state average graduation rate. At the same time, it is vital that with the increase in on-time graduation rates comes an increase in the number of APS students who are college and career ready.

Figure 10: 2016 APS Graduation Rates and Change from 2013 (percentage point change)



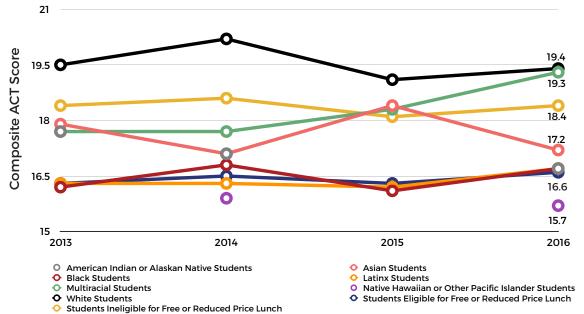
³ Michelle Webster and Jesus Loayza, The State of Working Colorado 2016 (Colorado Center on Law and Policy, 2016), 21.

High school graduation should be a pathway for students to college and career. By 2025, 75% percent of jobs in Colorado will require some kind of additional training beyond high school.⁴

To get a picture of Aurora graduates' access to college programs, we look at ACT scores. The ACT is an entrance exam for colleges and provides a measure for college readiness. An average composite ACT score of 20 meets expectations for the state of Colorado; ACT sets the college-ready scores at 18 in English, 22 in Reading, 22 in Math, and 23 in Science.

In APS, no student group meets state expectations for ACT scores, and few groups have seen notable improvement. Despite the fact that Aurora is increasing its percentage of high school graduates, there is still work to be done to ensure that those graduates are ready for the next step in their education or career.

Figure 11: APS Composite ACT Scores by Student Group (2013-2016)



Note: Due to CDE's suppression of small cohorts (<16), average ACT scores are not available for American Indian or Alaskan Native Students for 2015 and 2016, and are not available for Native Hawaiian or Other Pacific Islander Students in 2013 and 2015.

Figure 12: Top Composite ACT Scores in APS High Schools by Student Group (2016)

| Student Group | School Name | Average Composite ACT Score |
|---|---|------------------------------|
| Students Ineligible for Free or Reduced Price Lunch | Vista PEAK 9-12 Prep Rangeview High School William Smith High School Lotus School for Excellence | 19.8 19.3 18.7 18.7 |
| Students Eligible for Free or Reduced Price Lunch | Rangeview High School Vista PEAK 9-12 Prep William Smith High School | 17.9 17.4 17 |
| Asian Students | Rangeview High School Aurora Central High School Hinkley High School | 21.6 14.1 14 |
| Black Students | Rangeview High School Hinkley High School Lotus School for Excellence | 17.5 17.4 17.1 |
| Latinx Students | Lotus School for Excellence William Smith High School Rangeview High School | 19.6 18 17.7 |
| Multiracial Students | 1. Rangeview High School | 20.4 |
| White Students | Vista PEAK 9-12 Prep Rangeview High School Hinkley High School | 20.4 20.1 19.3 |

Note: In APS, 3 schools had large enough cohorts (<16 students) of Asian students to report data; 1 school had a large enough cohort (<16 students) of multiracial students to report data

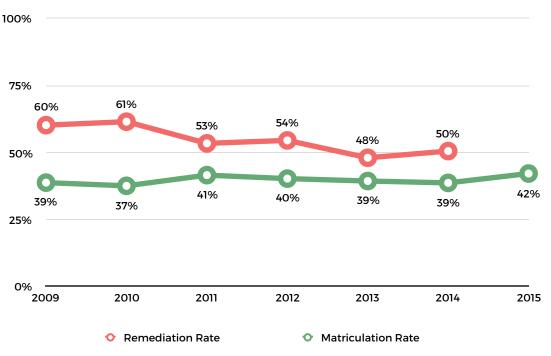
⁴ Anthony Carnevale, Nicole Smith, and Jeff Stohl, Recovery: Job Growth and Education Requirements through 2020 (Washington D.C.: Center on Education and the Workforce, Georgetown University, 2013).

Some high schools are showing higher ACT scores across students groups. Schools like Lotus School for Excellence, William Smith, and Rangeview show up multiple times on the Top 3 High Schools for ACT for different groups of students (Figure 12). While it is important to note that even the top average ACT Scores within APS for different groups of students are well below other schools in the state for the same groups of students, it is clear that there are practices within APS that are driving better outcomes. This is another opportunity for the district to look for lessons and facilitate the sharing of best practices across the district. whether it be from the APS schools identified here, or schools across the state with even better outcomes.

Matriculation rates reveal the percentage of students who attend college after graduating from an APS high school, and remediation rates let us know what percentage of those students needed to take remedial courses. Remedial courses cover high school level material that college students missed or need to relearn. These classes do not provide college credit but do cost as much as any other college course; they are not covered by Pell grants, meaning the cost comes out even our lowest-income students' pockets.

In Aurora, we see that only about one in four students who start 9th grade in APS enroll in college, and that half of those students who go to college have to take remedial courses. This raises the concern that APS high schools are not preparing their graduates for college-level work. While college may not be the pathway for all students, all students should have the academic preparation to allow them to be successful in college, if that is their choice. Graduating without the requisite skills for college does not provide a real choice and opportunity to those graduates.

Figure 13: Aurora Public Schools Matriculation and Remediation Rates (Classes of 2009-2015)



Conclusion

A+ Colorado offers four policy recommendations to increase student achievement across the district.

Improvement Strategies Rooted in Best Practices and Informed by Communities.

School turnaround is a difficult process that requires engagement at all levels--from the highest levels of district leadership to the specific classrooms, students, and families in turnaround schools across the district. Many schools in Aurora are in need of dramatic improvement which will require big changes. Without the support and investment of the community, change cannot take root. APS leadership needs to engage with families, teachers, school leaders, community members, and district staff and develop a clear blueprint for turnaround that respects these different perspectives. School turnaround strategies should result in improvements in student achievement within the first year or two. High quality turnaround plans require a commitment to best practice, strong leadership, and clear accountability from the district to ensure that plans are implemented and that school leaders are being held to high standards for success. Students depend on plans to be enacted with fidelity, and they cannot wait through periods of poor implementation.

Develop a Family Friendly Rating System and Make Data Accessible. The purpose of publicly available data is twofold: to inform people about the current state of affairs and to inspire improvements based on that knowledge. Families and communities should be able to access data about school quality, their student's performance relative to other students in the district and the state, and an understanding of the performance of the school and district they attend. It is not enough to have this data shared through Colorado Department of Education tools, which are not always easily navigable; the district and school should be consistently and intelligibly communicating with families about the quality of their schools. APS already has a robust data collection and analysis team that can incorporate school climate surveys and planning reports into CDE's school performance frameworks. The infrastructure already exists to make data useful to families in APS, it's time to act.

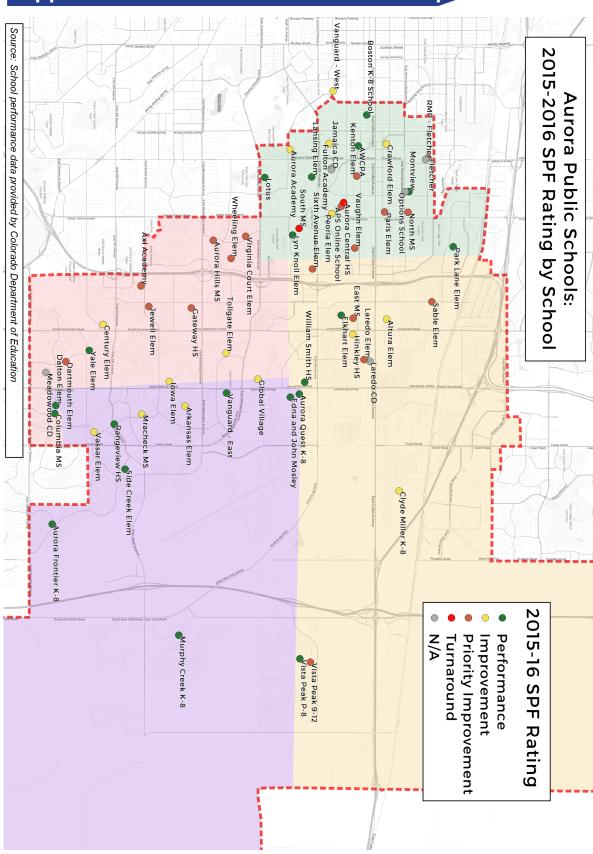
Create New High-Quality Schools. The district must fully commit to a new school strategy that prioritizes getting students into high quality schools as soon as possible. Ultimately, it is easier for a school to start from scratch than turn a chronically low performing school around. There is no one perfect school model. A district needs a number of distinct, high quality models to both give families choice for their child's education and give the district more options and opportunities for scaling best practices. The district cannot be reactive to new schools development, instead, it should create clear district policies for new school development and authorizing regardless of whether these schools are charter, innovation, or district run. Additionally, the district should equitably share bond and mill funds with all public schools, including innovation and charter schools.

Update the Strategic Plan to Prioritize Academic Achievement. Aurora Public Schools' strategic plan needs a thorough revision. APS 2020 is a simple plan: every student will have a plan for their future, the skills to implement their plan, and credentials that open doors. By zeroing in on workforce readiness, the plan's measures do not adequately enumerate how improvement will happen. The current strategic plan clearly communicates the value of postsecondary and workforce readiness, but those goals must be complemented by a more robust set of metrics and benchmarks that make it clear to all stakeholders that Aurora's kids are getting the education they need to be successful. A strategic plan should communicate clear priorities and expectations to the community so that schools and districts can be held accountable to student achievement outcomes. Aurora could look at strategic plans from districts like Harrison 2 or Denver to see examples of strategic plans that provide a roadmap for improvement with metrics that can directly be related back to student achievement and postsecondary/workforce

Aurora Public Schools must finally face the facts and honestly engage in the serious work of improving the district. Another generation of Aurora students cannot be lost because of half measures, unclear plans, or ineffective leadership.

readiness.

Appendix A: Aurora Public Schools Map



Appendix B & C: Percentile Analysis & District Demographic Analysis

APPENDIX B:

The A+ percentile analysis in the Start with the Facts report compares the relative performance of Colorado districts schools on previous and current tests: TCAP 2013 and 2014, and CMAS PARCC 2015 and 2016. The analysis includes results from Elementary English Language Arts, Elementary Math, and Middle School English Language Arts. Secondary math is not included given that students can choose between subject specific tests and are not necessarily comparable. High School English Language Arts is not included given that there are only results for a single grade (9th grade) and given low participation rates in some schools.

Methodology

Percentile ranks compare districts to districts and schools to schools on the basis of the percent of students who met the grade-level benchmark (level 4 and above on PARCC; meets or exceeds expectations on TCAP) in a particular test and grade range on the 2013 TCAP, 2014 TCAP, 2015 PARCC, and 2016 PARCC assessments.

Grades were grouped as follows:

- 3-5 (elementary students)
- 6-8 (middle school students)

This analysis relied on publicly available data. The Colorado Department of Education implemented additional data suppression rules in 2015 and 2016. These rules include:

- Minimum n-size = 16 (no reporting on cohorts of students with fewer than 16 students)
- Minimum cell-size = 4 (no reporting when a single cell, or the difference between valid scores and results cell, is less than 4)

For the 2016 analysis of PARCC scores, results from specific grades were included only if a) there were more than 15 valid scores, and b) results of the valid scores were reported. In 2015, results were included when a) there were more than 15 valid scores, b) results of the valid scores were reported or results could be estimated (this change in methodology in 2015 to 2016 is due to changed reporting rules from the Colorado Department of Education).

Calculation of percent of students at benchmark:

PARCC (Math and English Language Arts) and TCAP Math:

% of students at benchmark

N students at benchmark
N valid scores

TCAP Reading and Writing (combined to provide a better comparison to 2015 PARCC

TCAP Reading and Writing % at benchmark =

English Language Arts exams):

(N students at benchmark in Reading + N students at benchmark in Writing)

(N valid scores Reading + N valid scores Writing)

APPENDIX C:

Methodology

To better compare like-schools based on their demographics, every school in the state of Colorado was assigned a School Demographic Score. This methodology mirrors closely what Denver Public Schools uses to compare similar schools, and is based on research of student factors that are often correlated to academic performance on standardized tests. The Index was calculated according to the following formula:

(40% × proportion of students

District
Demographic = Index

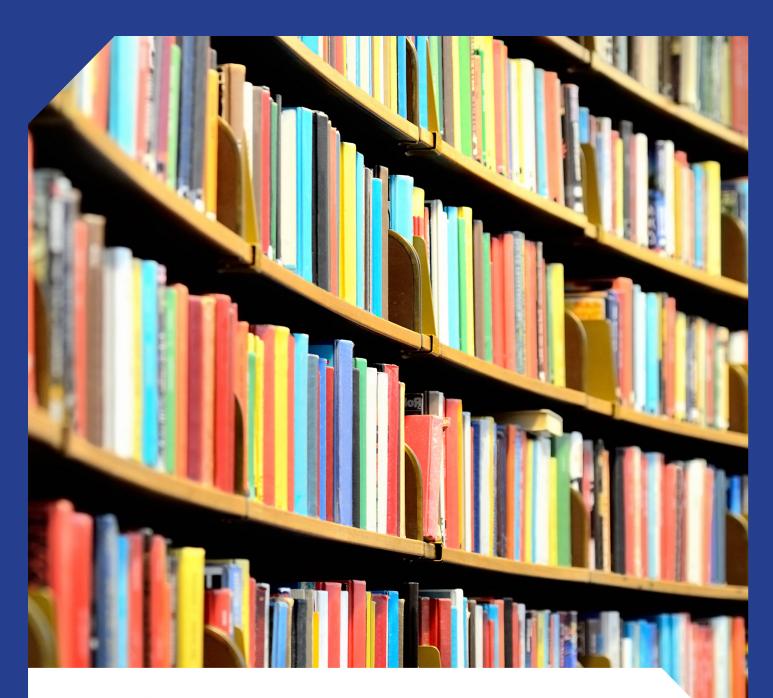
qualifying for free or reduced price lunch) qualifying for free or reduced price lunch) (20% X proportion of emerging multilingual students (ELLI) + (20% X proportion of students receiving special education services) + (20% X district mobility rate)

A+ then produced a correlation between student performance in the school (percent of students meeting grade-level standards on PARCC 2016) and the School Demographic Index.

Selection Criteria for Inclusion as an Outlier

To identify "Outliers," A+ compared actual performance in a school to the correlated value based on the School Demographic Index and performance in schools across the state.

A+ calculated the range of the discrepancy between actual and correlated performance, and identified those schools that performed at least 1 standard deviation below and 0.8 standard deviations higher than the correlated value; 30-40% (depending on the subject area and grade level) of schools were identified as "Outliers," falling outside the trend line.





ABOUT A+ COLORADO

The mission of A+ Colorado is to sharpen public education by building public will and advocating for the changes necessary to dramatically increase student achievement in schools and districts in Colorado. We are an independent, nonpartisan 501(c)(3) organization working to bring the power of data and research to challenge ourselves, educators and policymakers to rethink public education.

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