An abstract graphic featuring a light blue background with a diagonal black line running from the top left to the bottom right. Scattered across the background are numerous dots of various sizes and colors, including red, blue, orange, and grey. The dots are more densely clustered in the upper left and lower right areas, with a few outliers in the center.

OUTLIERS 2020

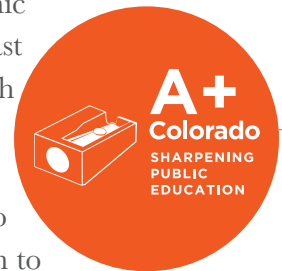


Letter to our readers:

In spring of 2020, the rapid spread of COVID-19 disrupted education as we knew it - students and educators were sent home, teaching and learning turned remote, and school districts attempted to address basic food and technology needs for their communities.

Going into the fall of 2020, most students will start their year online with full reopening increasingly dependent on a vaccine we might not see until winter 2021 at the earliest. As teachers and districts continue to define what instruction will look like, we know that academic gaps that persisted prior to this pandemic will have been exacerbated by the sudden transition to online learning this past spring. Now, more than ever, we need insight into how students are doing both academically and personally. Unfortunately we now have fewer ways to compare where students are at in terms of their mastery of grade-level expectations, or of their academic growth in light of the necessary decision to cancel statewide academic content assessments this past spring. The transition to online learning has also meant that we also have less information about attendance and engagement.

Outliers 2020 focuses on information that we do know about where students were at academically before COVID-19 swept the globe and our local communities. A+ spent time writing this report and creating interactive data visualizations so that all public education stakeholders could see how different groups of students were doing academically within and across different school districts across the state. Given the immediate needs of students, families, and educators earlier this spring we delayed releasing this report. We now hope that this information guides questions that families, educators, and policymakers ask in the context of this crisis about how to build a more just and equitable education system in Colorado and our nation.



INTRODUCTION

A+ Colorado's signature Outliers report is a compendia of which districts are beating the odds in terms of student outcomes, and which districts are behind the curve across many different metrics. It provides the state of the State for education. Historically, A+ Colorado has looked across Colorado's 179 school districts to try and answer the question: who is doing a good job and where should we be worried?¹ This year we approached our Outliers report differently. Our goal for this report has always been to help readers understand which districts are truly noteworthy. However, there is much more to the data than the top and bottom ten districts by a given metric.

There are myriad ways to look at the wealth of information that the Colorado Department of Education provides to try and gain a sense of where good work is happening. In this report we model a few ways that a reader can look at data in order to answer different questions. To supplement this analysis, we strongly encourage readers to explore the state of Colorado's districts by going online and accessing A+ Colorado's unique tool to see how districts compare across many different measures. There you can explore demographic trends, see which are the bright spots in achievement across the state, and assess where we are going next as a state with our preparation of students for life beyond high school.

In this print report, we highlight four districts in each section that bear mention in response to different research questions that we raise. We first highlight a student population that faces unique challenges. We then try to identify geographies that are best helping students make progress in learning foundational skills. Lastly, we look at multiple pieces of information to measure postsecondary readiness across districts, understanding that life after high school looks different for everyone; yet it is critical that our education system equips all students for success after school.

This report highlights a few stories that we can find in the data. We have brought attention to only three out of dozens of different stories we can find in the data, suggesting that these be initial places to begin digging deeper and discover what district actions are shaping the results we see. ***We strongly encourage you to go to A+ Colorado's online tool to see how your district compares, where different groups of students are excelling, and find your own data stories worth sharing.*** We include additional context in our online tool so readers can easily make sense of how one district compares to others, and what makes a district notable.

The availability of information on different districts is limited to the publicly available data. Due to Colorado's data suppression rules, which while intended to protect student privacy, are in fact unnecessarily strict, information on large groups of students is hidden. Consequently, not all districts have information publicly reported. All of these charts represent available information. Notably, data on Native American students, emerging multilingual students, and students with disabilities is not always available. Interpret information about these small cohorts with caution. For more information about Colorado's data suppression rules visit the [Colorado Right to Know Coalition](#).

< YOU SHOULD

DEMOGRAPHICS

WHY WE CARE

Student populations vary across the state, which can result in different federal dollars, challenges, and opportunities for school districts. This impacts the resources that schools need, the skill sets required of teachers, and helps us understand which districts are strongly supporting all students. **Below we highlight a few districts but encourage you to see which districts are serving different student populations on our online tool.** In this section, we look at students experiencing homelessness to highlight how this population brings a unique set of needs to the classroom and to help set the stage for conversations around district and school services that support even the most vulnerable student populations.

FURTHER QUESTIONS TO EXPLORE ONLINE

Visit our online tool to explore these additional demographic questions and more:

Where are the districts with the highest shares of students experiencing poverty?

Where are the largest emerging multilingual student populations? Are these populations growing or shrinking?

Which districts have the highest share of students receiving special education services?

Where are our most diverse districts?

STUDENTS EXPERIENCING HOMELESSNESS

The state defines students experiencing homelessness as any youth who lacks a “fixed, regular, and adequate nighttime residence.” This includes youth who are temporarily staying with other family members due to economic hardship or other temporary housing situations. These students may face added stress due to uncertainty, traumatic experiences, or face other challenges, like food insecurity. Moreover, families in these situations may not recognize that they are eligible for added supports,² such as transportation to school, free lunch,³ or waiving dues for extracurricular activities so students can fully participate in school.⁴ Thus, while students experiencing homelessness may be harder to identify, there are clear avenues for supporting children and families when they find themselves in an unstable or transitional housing situation. It is important to understand how districts and communities are supporting the 13,000+ students experiencing homelessness across the state who may be overlooked for these aforementioned reasons. School districts receive additional federal funding through the McKinney Vento Act for programming to support students experiencing homelessness. Frequently, this funding goes to wraparound services and supports for these students facing unique challenges.⁵ Here, we focus on this often overlooked population in different communities.

The districts we highlight in this section on students experiencing homelessness are:

Adams 12

Mountain Valley 1

Sheridan 2

Westminster Public Schools

We chose these districts first because they have significant populations of students experiencing homelessness. Additionally, they represent districts that vary in both geography and demography. These districts represent a few of the many different districts that might see their own experience or communities reflected.

These districts range from small to large in terms of their student populations. Mountain Valley 1 is a smaller district in the San Luis Valley in Southwestern Colorado, whereas the remaining three districts are in the Metro Denver Area. Both Adams 12 and Westminster are located in Adams County, and Sheridan is in Arapahoe County.⁶

Our online tool provides further information on how each district (that has available data) changed from 2015 to 2019. To see which districts saw the largest changes in this student group over the past five years overall, be sure to explore A+ Colorado's online tool.

While the four districts we have been exploring vary across many different demographics, they all have one thing in common: they are tasked with supporting the largest shares of students experiencing homelessness. Most other districts in the state see less than 2% of their students experiencing homelessness. While there are fewer students, per capita, experiencing homelessness in Adams 12 compared to the other three districts we have been exploring, they still serve twice the statewide average; and the number of students experiencing homelessness increased over the past five years while its overall population increased as well. Mountain Valley has consistently seen a significant part of their student body experiencing homelessness.

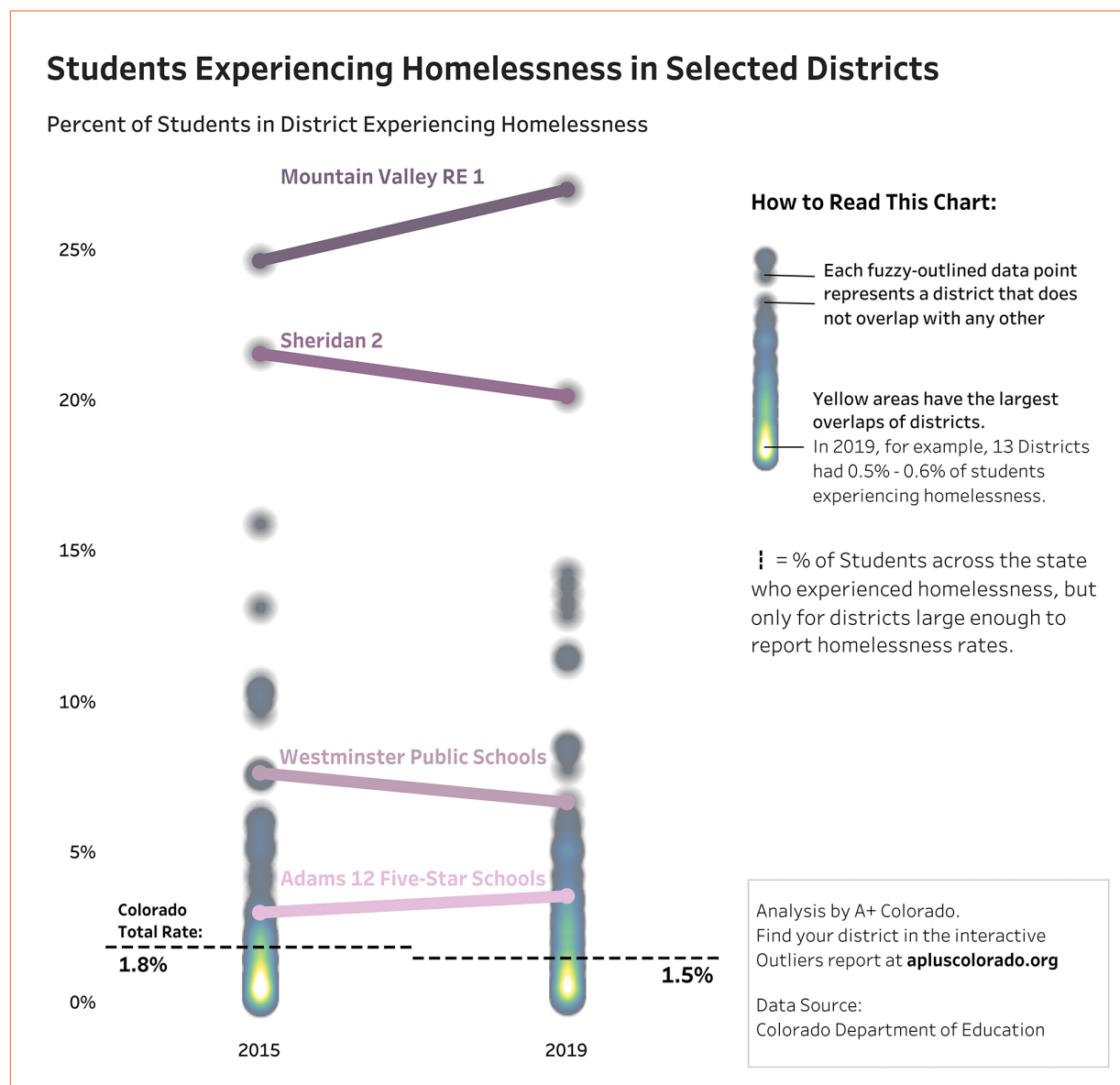


Diagram 1.1

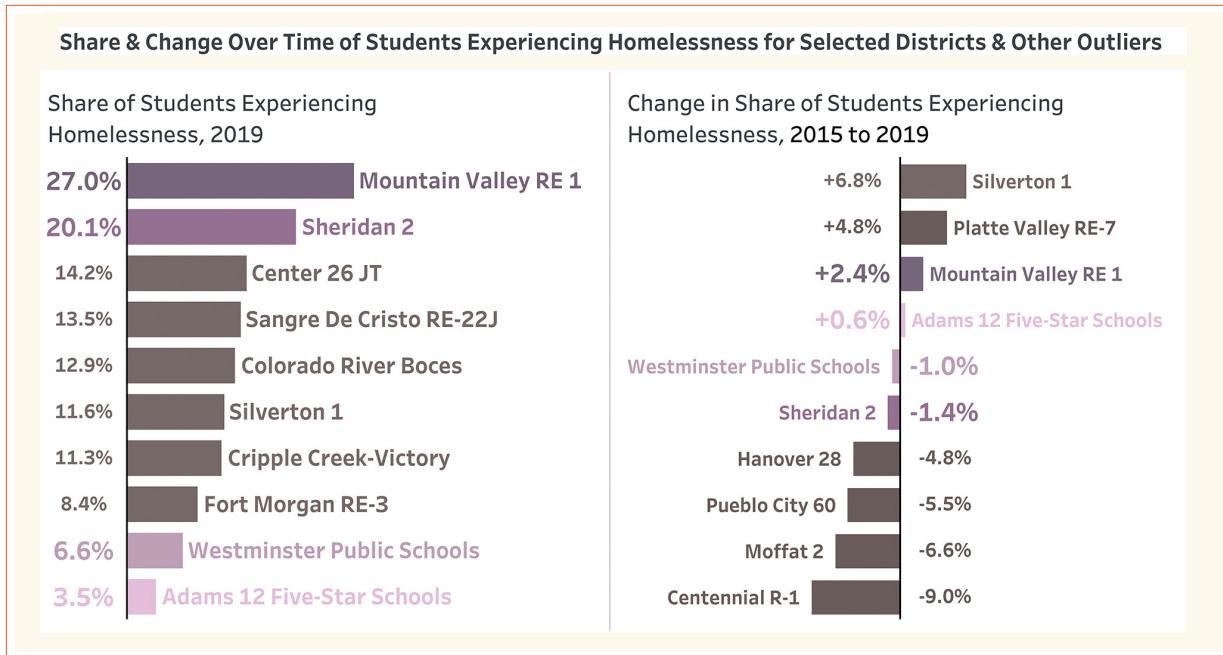


Diagram 1.2

We look at a five-year trend to better understand the direction over time. Beyond seeing how districts are supporting these students, and other students facing out-of-school challenges, further exploration in the locality-based drivers of student homelessness should be conducted. For example, are districts with growing or decreasing rates of student homelessness experiencing that change due to population shifts (e.g. gentrification), or due to greater housing stability and economic growth?

Further, it is worth exploring how districts are approaching providing services for these students. For example, transportation supports might be a greater priority in some of these districts over others. Understanding the range of approaches districts take to identify and support children and families experiencing homelessness is critical, in particular given the diverse regions that serve significant shares of students experiencing homelessness.

ELEMENTARY AND MIDDLE SCHOOL

WHY WE CARE

Over the past decade Colorado lawmakers have, rightly, emphasized reading as a key area of focus. The adage, “learn to read, read to learn,” succinctly illustrates why this foundational investment is so necessary. Our online tool provides additional information showing that over the past four years we see that the average share of students meeting expectations in reading, writing, and critical thinking, measured by CMAS, has shifted up. The distributional shift upwards means that most of Colorado’s districts saw significant improvements in the share of their students meeting standards over this period of time. The average district improved achievement in this area for their 3rd-8th graders; the bottom-performing districts increased their performance, as did the high-performers. This sustained achievement across the state is mirrored in Colorado’s NAEP results, which show that while Colorado remains average compared to the nation, Colorado students have shown statistically significant higher improvements in reading compared to the rest of the nation over the past 4 years.⁷ It is clear that in reading, as a state, we are on the right track.

The same cannot be said for math. According to CMAS, while the bottom quartile’s performance slightly improved, the whole of the distribution remained largely the same. NAEP confirms that over the past 4 years, Colorado has not shown statistically significant improvements compared to the nation, however there have not been significant declines in performance either. For this reason, we decided to explore growth, and in particular see how districts in the same geography may compare in supporting student progress in math. While we know that as a state our math achievement remains low, we wanted to explore if there are any areas of the state that are on the right track for all students by sustaining high growth regardless of initial levels of achievement.

FURTHER QUESTIONS TO EXPLORE ONLINE

Visit our online tool to explore these elementary and middle school achievement and growth questions and more:

How does student achievement and growth in my district compare to other districts?

Which districts saw large increases or decreases in academic achievement? For which group of students?

Experiment with our traditional scatter plot that compares district achievement in CMAS in English language arts and math, as well as SAT scores, by a demographic index that balances the share of low-income students, students receiving special education services and mobility rates.

THE KIDS AREN'T ALRIGHT WHEN IT COMES TO MATH.

Elementary and middle school set the stage for high school and beyond. It is during this time that students develop some of the foundational skills in reading, writing, and math that will help them succeed as they encounter and learn more complex topics. For this reason, A+ Colorado believes that equitable, high achievement is critical to ensure all students have access to equal opportunities after public education. Thus, while some may be concerned that school systems are overly concerned with standardized tests, we find the Colorado Measures of Academic Success (CMAS) exam to be a useful tool for identifying which districts are doing phenomenal work with their students on one of the few comparable measures we have in the state. In this section we look at how districts in one region are helping students make progress compared to their academic peers. We look at growth for different groups here, rather than achievement. Achievement tends to strongly correlate with socioeconomic status. Growth, by contrast, demonstrates how much a student is progressing compared to students who have similar score histories.

The districts we highlight in this section on student growth in math are:

Cheyenne Mountain 12

Colorado Springs 11

Lewis-Palmer 38

Widefield 3

In this section we explore districts that are located in the Colorado Springs area. In the context of Colorado, these districts run from medium to large, ranging from around 5,000 students at Cheyenne Mountain 12 to roughly 25,000 students in Colorado Springs 11. They also vary in demographics. In Lewis-Palmer 38 and Cheyenne Mountain 12 most students are white; whereas Colorado Springs 11 and Widefield 3 have about half of their students identifying as white, with students identifying as Latinx, or black or African American also comprising large shares of the population.

As with demographics, our online tool has the full data, where available, for both English language arts and math. We also provide the data for other demographic groups beyond race/ethnicity.

In math, Lewis-Palmer had the highest growth for black or African American students in the state and Colorado Springs 11 had the highest growth for Hawaiian and Pacific Islander students by a wide margin

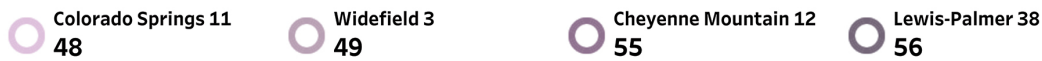
of 10 percentiles, with Widefield 3 having the second highest growth for students identifying as Hawaiian or Pacific Islander, with an MGP (Median Growth Percentile) of 52. However, Widefield 3 also had some of the lowest growth for Asian students in math. Cheyenne Mountain's growth is consistently between 50 and 60 for different groups of students, meaning most of its students are progressing as much or more than their academic peers.

Across all the districts there are notable gaps in growth by race and ethnicity. Moreover, there are clear differences in the distribution of median growth percentiles across race and ethnicity. For example, Asian students tend to have higher median growth percentiles than their peers. Also notable is the effect of data suppression as we get to districts that are smaller and have smaller groups of students identifying as a given race. For example, while we can see nearly all information for white students, that same information is considerably limited for black students.

Even within one region we see notable differences in populations and growth. Yet, none of these districts are towards the bottom of the pack. Moreover, there seem to be large gaps in growth within these districts. Further exploration into these districts' policies and practices would be helpful in order to try to make sense of the gaps between high growth for some groups of students, and less growth for other groups of students. If there is significant variability in district policies or programs that are leading to these outcomes, it would be a unique opportunity to also explore whether families are exercising school choice into other districts to find programs that are a better fit.

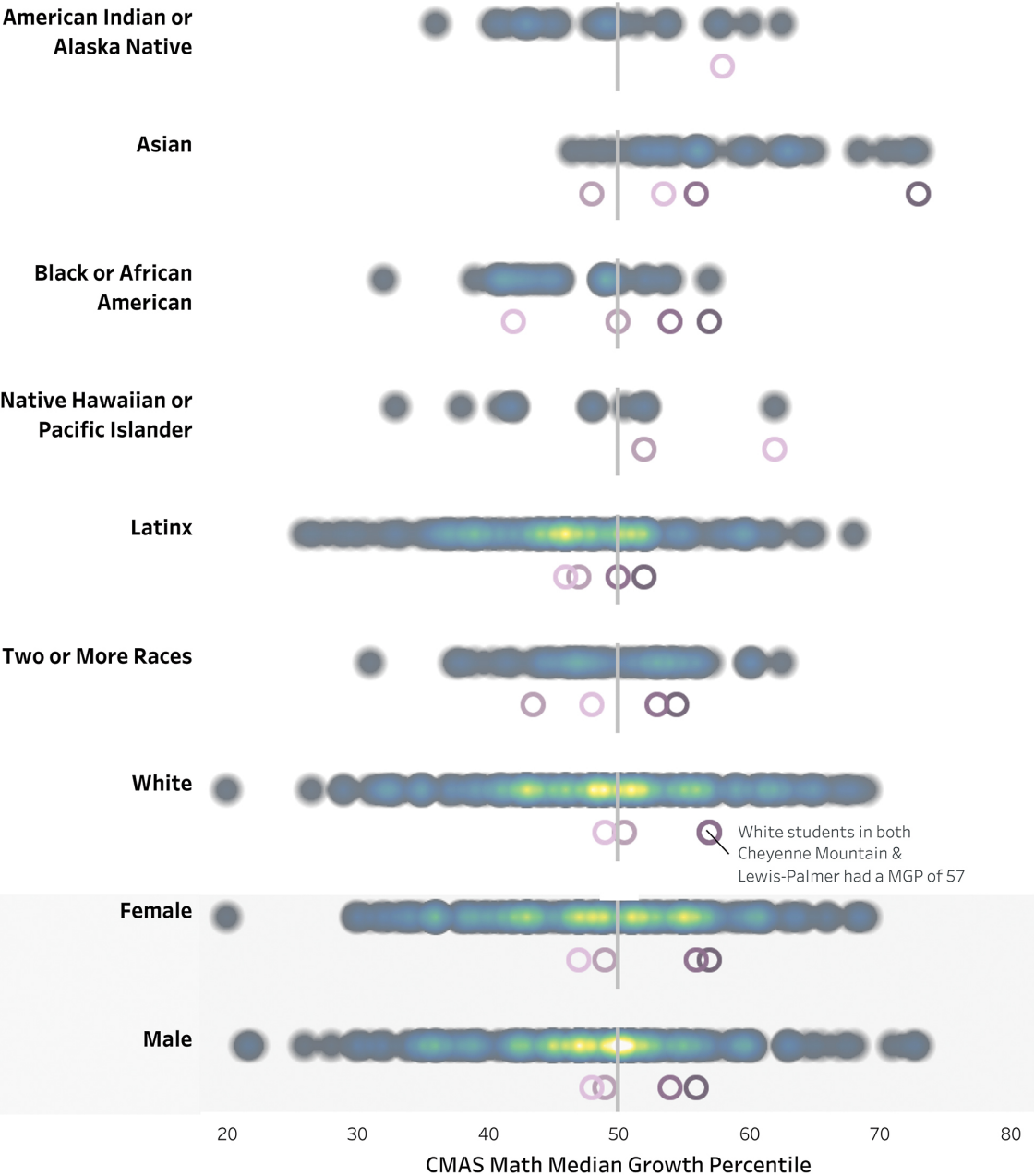
Growth in Math for Selected Districts, CMAS 2019

All Students' Median Growth Percentile, CMAS Math 2019 for Select Districts



CMAS Growth in Math Across Ethnicity and Gender

A Median Growth Percentile of 50 (marked by the line) indicates where the average student made the same progress as their academic peers. An MGP above 50 shows, on average, students are making more growth; an MGP below 50 shows students are making less growth than academic peers.



Analysis from A+ Colorado. Find your district in the interactive Outliers report at apluscolorado.org

Data Source: Colorado Department of Education

Diagram 2

HIGH SCHOOL AND BEYOND

WHY WE CARE

Public education can lead students to many paths. Increasingly there is contention whether college is the right pathway for all students, as investment in career and technological education rises along with the cost of 4-year college. Regardless of whether a student wants to go to college, there is a reasonable expectation that any student who does wish to go to college after high school should have the capacity to enroll in an institution of higher education without needing to pay for skills they should have attained in high school. Remedial coursework not only decreases the likelihood that students will finish school, but it raises the cost of school, exacerbating the equity gaps that already exist in our education system.⁸

FURTHER QUESTIONS TO EXPLORE ONLINE

Once again, we are fully aware that there are many important questions not explored here. We encourage you to go online to explore SAT scores, matriculation, and remediation rates, and dive deeper into the data presented here.

How does my district compare to other districts in terms of outcomes for high schoolers?

Which districts have the biggest gaps in SAT scores by race/ethnicity?

Do college-going rates relate to college-readiness rates?

Are students going to college (and succeeding)?

While there are many metrics of success for life after high school, we decided to explore which districts are best helping all students access college and succeed once there. To measure this we looked at districts which had high college-going rates for students across multiple racial and ethnic groups that also had high college-ready rates, measured by not needing to take remedial coursework. The most recent data available for college-going and college readiness rates is for the graduating class of 2017, consequently these data are for the 2018-2019 school year. Further trend data is available online.

The districts we highlight in this section on college access and readiness are:

Cheyenne Mountain 12

Douglas County

Durango 9-R

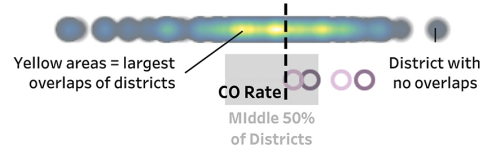
Lamar RE-2

All of these districts had a comparatively high share of students going to college, and most students did not need to take remedial coursework once there. To see how other districts perform across these many measures please be sure to look at our online tool and see how districts stack up.

COLLEGE-GOING RATES

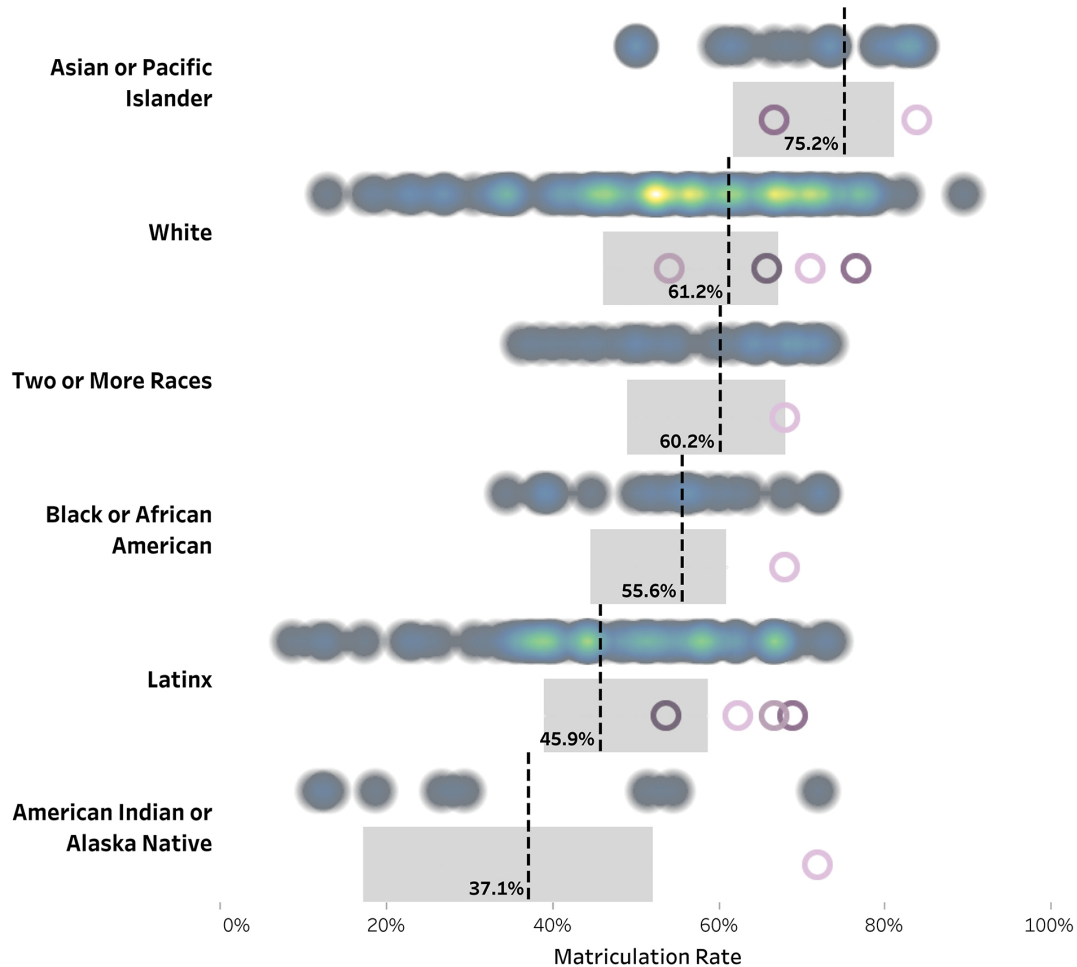
Much like other academic outcomes, there are significant gaps in matriculation or college-going rates by race/ethnicity. There is also significant variation in matriculation rates. For more information on matriculation data at the school-level be sure to look at our report on matriculation: *A Seat at the Table*.⁹

College-Going and College-Readiness Rates in Selected Districts, 2017

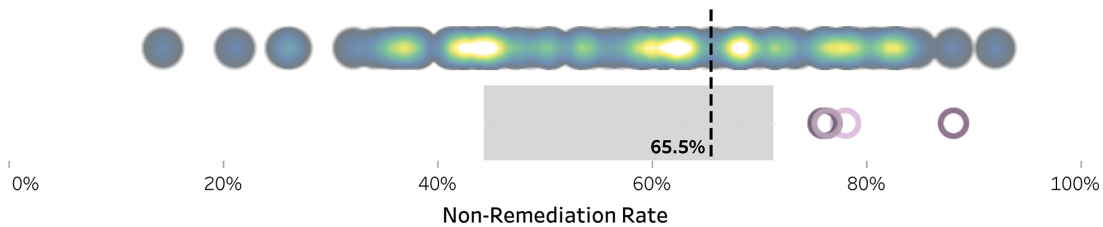


Cheyenne Mountain 12 Douglas County RE 1 Durango 9-R Lamar RE-2

College-Going: Rates at Which Students Enroll in College



College-Ready: Percent of Students Not Requiring Remedial Coursework



Analysis from A+ Colorado. Find your district in the interactive Outliers report at apluscolorado.org

Data Source: Colorado Department of Higher Education

REMEDIATION

Remediation rates show the share of students who need to take classes to build basic academic skills. In short, these are students who are needing to pay to learn skills that they should have learned during their K-12 education. Remediation increases the likelihood that students drop out and raises the cost of college.

For this reason it is helpful to see districts that are sending most students to college, and helping most students succeed once there. On balance it appears that average remediation rates have remained roughly the same but remediation rates within districts are volatile over the five year period that we examined. All of the districts we highlighted saw improvements in terms of the students not needing remediation and have less than a quarter of their students needing remedial coursework.

The districts in this section represent a wide range of district sizes, from the smaller Lamar RE-2 district in southeast Colorado, to the larger metro-area Douglas County. Except for Lamar RE-2 that is predominantly comprised of Latinx students, all other districts are primarily comprised of white students. Curiously, Lamar RE-2 saw higher college-going rates for Latinx students than white students. All of these districts see gaps in college-going rates of at least 10 percentage points or higher between different groups of students, with the lower performing group going to college at rates consistent with the state average. Unfortunately, at this time we have not been able to acquire disaggregated college-readiness rates for all districts, however the Department of Higher Education allows you to look up this information for a single district at a time. On balance, it appears that these districts, while still demonstrating significant gaps, do a good job at preparing the students they send to college to succeed once there.

RECOMMENDATIONS FOR POLICY MAKERS

1. **The Colorado Department of Education should continue to facilitate and expand opportunities for districts to convene with and learn from similar districts.**

In this report we highlight places where other districts might be able to turn to and find opportunities to learn from and with districts facing similar challenges. We believe the Colorado Department of Education is uniquely positioned to play a role as convener where districts that are similar can engage in dialogue to see how educators across the state are addressing the challenges they face. This would undoubtedly lead to unique learnings for the state as well. We hope that learnings from these convenings can be captured for practitioners, policymakers, and communities across the state.

2. **The state and districts should be clear on what barriers to educational opportunities exist in their communities, and work to eliminate them.**

This report focused on identifying students experiencing homelessness in order to draw attention to the support that these students may need that are different from other students in stable housing. Understanding who our schools and districts serve is critical to ensuring that they are providing all students an equitable and excellent education. We strongly support continued focus on understanding student demographics, communities, and ensuring that the education system recognizes and supports our students' backgrounds and experiences.

3. **Colorado must direct investments in math education to rapidly increase achievement in mathematics.**

Over the past decade the state has made concerted efforts to build literacy in our elementary schools, knowing that this foundational tool allows students to become life-long learners. We believe that continuing to work towards increasing literacy rates is critical. However, stagnant math scores and an uncertain future of work underscore the need to invest in math education with an emphasis on raising outcomes for students across income, race and ethnicity to remove any existing achievement gaps.

4. **No Silos! Our data on postsecondary pathways cannot be limited to college enrollment. Colorado needs to connect data, and needs to collect information on students pursuing pathways or going directly into the workforce.**

Our understanding of what is working and what isn't would be significantly bolstered if K-12 education data were linked to data on postsecondary outcomes beyond college enrollment. The Department of Education should ensure that it fosters a culture of learning that allows for these types of projects when they arise. However, it is also incumbent on other state departments to share relevant data so that we can better understand which pathways are being used by students, and which pathways can be improved upon.

5. **Improved data collection, both categorically and qualitatively.**

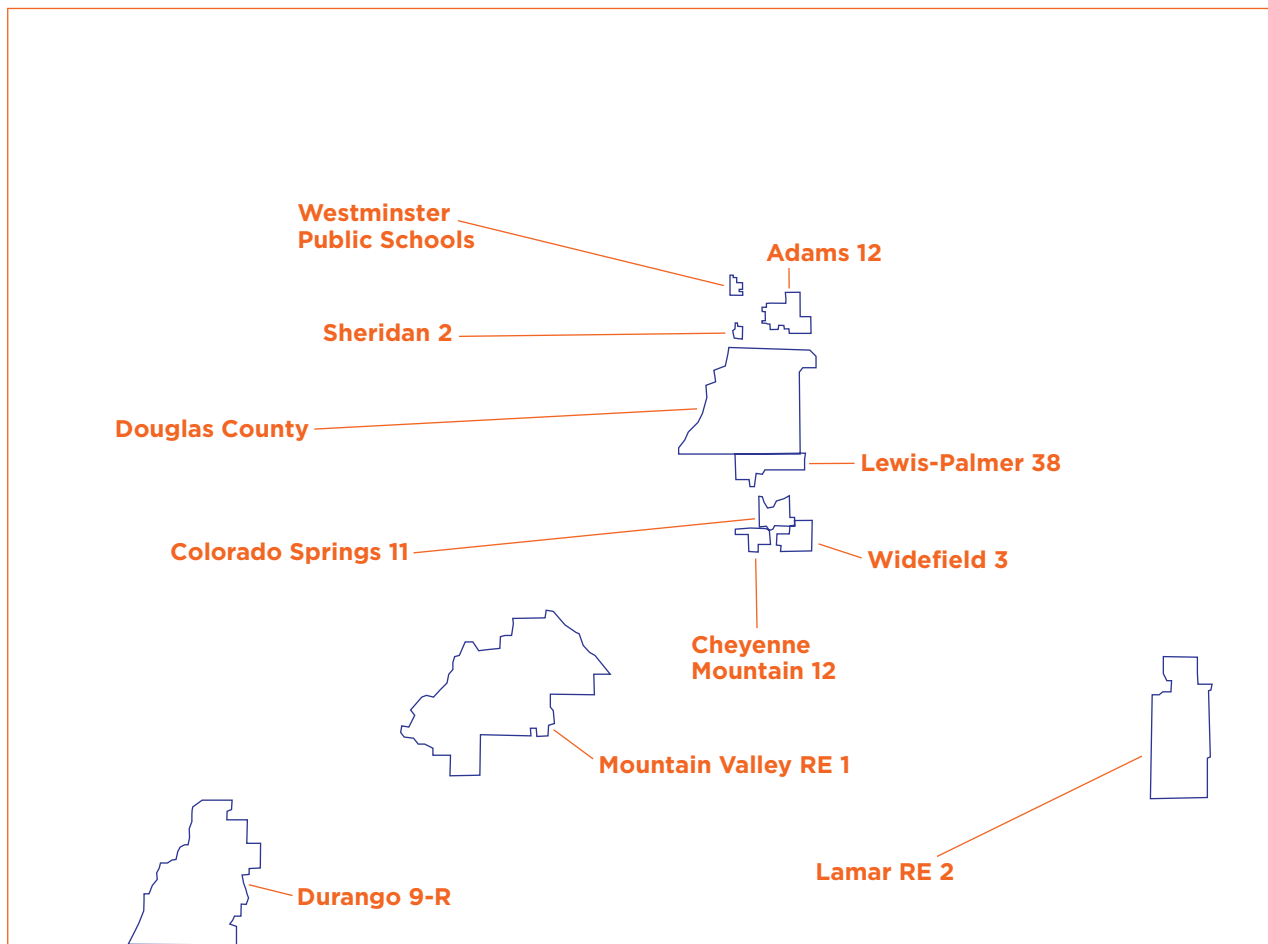
The stories we see here show one part of the picture. The limited answers we can provide is directly related to the limited data that is publicly reported. Quality data will allow us to ensure that all students, and as many different experiences as possible, are counted. We strongly urge the Colorado Department of Education to continue to interrogate the ways that they can report data that is unsuppressed and disaggregated. This transparency issue is foundational so that we, as a state, are able to hold districts accountable and see which districts are beating the odds.

To learn more about each of these recommendations see our full report and resources online!

CONCLUSION

In Colorado's districts there are countless notable stories. It's impossible to show every single story of growth, progress, and achievement that is worth celebrating. We cannot identify the root causes of every policy change that led to growth. Here, we wish to celebrate those that truly had remarkable progress over the past five years. For every story of success we can identify, there are many questions we still have and progress to be made. A wealth of additional information is found on our online tool. Be sure to go and explore how your district compares, and see which districts stand out across many different measures.

APPENDIX 1



Colorado school districts mentioned in the report.

ENDNOTES

1. Colorado is made up of traditional school districts as well as Boards of Cooperative Educational Services (BOCES) <https://www.coloradoboces.org/colorado-boces-association/about-boces/>. BOCES are entities that provide additional services to school districts that may not have the capacity to provide the services themselves. Often this occurs in smaller districts where, due to scale, it doesn't make fiscal sense to invest in some of these services (e.g Special Education services and professionals). The number of BOCES has changed over time as they reorganize to include different districts. Because they provide services to students, we have included them in our online tool. Our analysis focuses on districts but includes information BOCES where available.
2. Zubrzycki, J. (2018, July 27). Colorado Sees Surge in Child Homelessness. Retrieved from <https://www.coloradotrust.org/content/story/colorado-sees-surge-child-homelessness>
3. Colorado Department of Education. McKinney-Vento Education for Homeless Children and Youth Program. Retrieved from <http://www.cde.state.co.us/communications/mckinney-ventofactsheet>
4. National Association for the Education of Homeless Children and Youth, & National Law Center on Homelessness and Poverty. (2017). The Most Frequently Asked Questions on the Rights of Children and Youth in Homeless Situations. Retrieved from https://naehcy.org/wp-content/uploads/2018/02/2017-10-16_NAEHCY-FAQs.pdf
5. Explore the 2019-2020 grants that districts are receiving for programming support: <https://www.cde.state.co.us/dropoutprevention/mckinneyventosubgranteeprogramoverview>
6. See where all our selected districts are located in our map at the end of this report.
7. U.S. Department of Education. NAEP State Profiles. Retrieved from https://www.nationsreportcard.gov/profiles/stateprofile/overview/CO?cti=PgTab_OT&hort=1&sub=MAT&sj=CO&fs=Grade&st=MN&year=2019R3&sg=Gender:+Male+vs.+Female&sgv=Difference&ts=Single+Year&tss=2015R3-2019R3&sfj=NP
8. Jimenez, L., Sargrad, S., Morales, J., & Thompson, M. (2016, September 28). Remedial Education. Retrieved from <https://www.americanprogress.org/issues/education-k-12/reports/2016/09/28/144000/remedial-education/>
9. Because data on college going and college readiness is collected by the Department of Higher Education, some racial and ethnic groups are reported differently.

WHAT YOU CAN FIND ONLINE:

There is only a snapshot of A+ Colorado's Outliers work captured in this report. To explore every district in the state across a variety of metrics from enrollment to achievement to growth, visit the Outliers page. From this page, you can navigate between our data visualization tools, allowing you to select your district of focus. Find a visualization you think is compelling and want to share? You can download your filtered views as a PDF, PowerPoint, or image or share a link to the visualization from your social media channels.

Find your Outliers at apluscolorado.org/outliers2020.

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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