



Profiles of Success:

Eight Colorado Schools that are
Closing the Achievement Gap



Prepared for the Donnell-Kay and Piton Foundations
in Collaboration with the Colorado Department of Education

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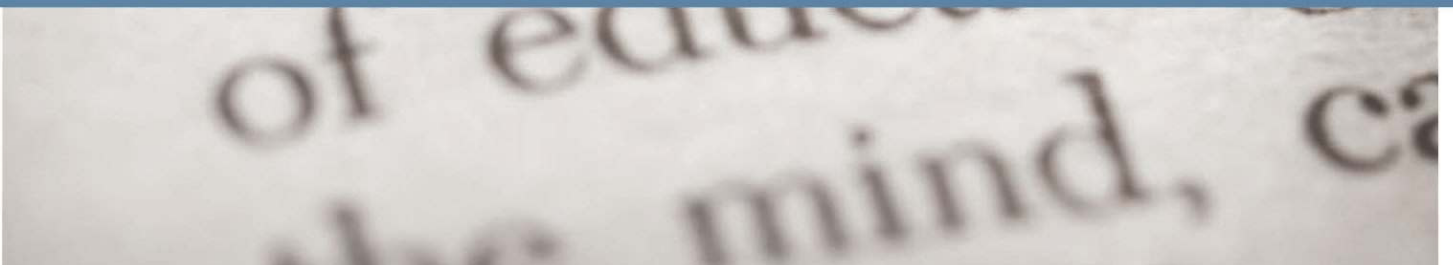


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I. Overview, Findings and Recommendations

Across our nation, a significant share of poor and minority students are failing to achieve at the same levels as their more affluent peers. This disparity in academic performance has been labeled the “achievement gap.” Designing and implementing strategies to close this gap is a focus of many education reform efforts.

In Colorado, a 2005 study by the Colorado Children’s Campaign (CCC) reported that nearly 400,000 students, on average, were below proficient on the state CSAP assessments.¹ Additionally the report found that academic gains over time among poor students were not keeping up with those of their more affluent peers. Despite this finding, the report identified several schools in Colorado that were making significant progress in closing the achievement gap. These schools have been able to “beat the odds” in terms of their ability to educate economically disadvantaged students.

Although the CCC report discussed these schools, it did not provide detail on the types of strategies or programs that made them successful in educating their students. With support from the Donnell-Kay and Piton Foundations, Augenblick, Palaich & Associates (APA) was tasked with analyzing all schools in the state, identifying those whose performance beats the odds, and providing insight and information regarding the types of programs, services, and resources which these schools employ. Our findings, which are provided in this report, can be utilized to help inform the efforts of schools and districts across the state as they work to close the achievement gap and to elevate the performance of all students.

Methodology

APA analyzed reading, writing and math scale scores² on the Colorado CSAP from 2004-2006 and then ranked students’ average three year results by school. We then identified the mean score for all students in Colorado by grade across the three subject areas.³ In order to determine which schools were closing the achievement gap, we examined the scores *only for students who qualified for free or reduced price lunch* and ranked these students’ three year averages by school. In a select group of schools the free and reduced lunch (FRL) population beat the state average for three years running, in at least two grades and subject areas (see appendix for the list of these schools). In other words, these were schools that had not only closed the achievement gap, but reversed it—students from lower socio-economic homes were scoring higher than the “average” Colorado student.

Table 1 displays the eight schools that APA selected to study. The table displays the average score in grades 4, 8, and 10 in each of these schools as compared to the statewide average for these subjects across the three years. APA examined the scores for all grades that took the CSAP in each school in order to identify schools for the study. As Table 1 shows, APA selected schools of varying grade configurations, sizes, demographics, and locations. We felt that it was important to look at “traditional” schools along with those with unique educational programs or governance

¹ Brodsky, A. (2005, October). *390,343 students left behind: Who’s closing the achievement gap in Colorado’s schools?* Denver: Colorado Children’s Campaign.

² A scale score is the actual score that a student received on the CSAP not to be confused with the proficiency level that a student reaches. Scale scores are typically converted into proficiency scores for the purposes of public reporting (e.g., proficiency scores are reported as advanced, proficient, partially proficient, etc.).

³ Note: 3rd and 4th grade students did not take the math CSAP in 2005 so results for those grades are for reading and writing only.

configurations, including charter schools. We also chose to mix in schools that were scoring well above the mean with those scoring closer to the mean in order to ensure that the study was not overly focused on outlier schools whose performance might be attributed to their unique location, student population, or other unusual factors. Finally, we chose to eliminate schools where the population of students that were eligible for free or reduced price lunch was less than 50% of the total population in elementary schools and 30% in middle and high schools. This allowed us to choose schools with the highest proportion of students from lower socio-economic backgrounds. As displayed in the appendix, low income students in other schools also beat the average; however, these schools were more affluent overall than those that we selected to examine for the study.

Schools that did not have three consecutive years of data were not included in this study (e.g., schools that opened new in 2006 or 2007). And, schools where we didn't have data for a particular grade or subject area were also eliminated (e.g., the number of students who took the exam was small so the data are not shared for privacy purposes). The table in the appendix displays those that did meet our criteria. The schools we chose to visit are listed below.

- Statewide average/mean for all 4th grade students who took the reading and writing CSAP in 2004-2006: 531
- Statewide average/mean for all 8th grade students who took the reading and writing CSAP in 2004-2006: 576
- Statewide average/mean for all 10th grade students who took the reading and writing CSAP in 2004-2006: 585.

Table 1: Average CSAP scores in grades 4, 8, 10 and other information about schools that participated in the study

School	Enrollment	District	% Eligible for FRL	Avg. score (and average points above mean) for FRL eligible kids in grades 4, 8, 10 ⁴ (2004-2006)
South Park (PreK-5)	378	Pueblo 60	68%	545 (+14), 4 th grade
Valley View (K-8) ⁵	434	Mapleton	62%	547 (+16), 4 th grade
Cesar Chavez (K-8)	1100	Pueblo 60	63%	565(+34), 4 th grade 613(+37), 8 th grade
Pueblo School for Arts & Sciences (K-8)	350	Pueblo 60	67%	532, (+1), 4 th grade
Cedaredge (6-8)	226	Delta County	45%	584, (+8), 8 th grade
Carson (6-8)	520	Fountain/Ft. Carson	35%	581, (+5), 8 th grade
Janitell (7-8)	492	Widefield	30%	581, (+5), 8 th grade
Hotchkiss (9-12)	259	Delta County	38%	604, (+19), 10 th grade

Note: FRL is Free or Reduced price Lunch

Once the sample schools were identified, APA conducted site visits at each school, which included interviewing school leaders and other key staff members. In addition, data regarding the number of personnel, funding received, and allocation of resources within each building were collected in

⁴ Note: 3rd and 4th grade students did not take the math CSAP in 2005 so results for those grades are for reading and writing only.

⁵ Scores for valley view are for 4th grade only because the middle school is relatively new and we didn't have 3 years of data.

order to determine whether consistencies existed across schools related to the level of funding required to operate the schools and/or the use of resources within school buildings (see appendix for copy of resource sheet and interview protocol).

What APA found in collecting these resource data was that no two schools allocated their resources in the same way. For example, when we compared the number of personnel per pupil across schools (in total and by sub-groups like instruction, counseling, and administration) we found considerable variance. Some schools invested heavily in instruction while others invested in administration. Yet all the schools were successful at closing the achievement gap. Since the schools studied showed such variance in how resources were invested, APA did not believe any single resource model could be recommended. Instead, what appears to be more important to the success of the eight schools we visited was the fact that many of the school leaders were given the flexibility and authority to decide how to direct resources to the areas of greatest need within their schools.

Several challenges also arose in our attempts to collect information about the cost per pupil of various resources like professional development and technology. It was difficult to capture these costs in schools that were not charters because funding typically comes from the district and districts typically do not break down these types of expenditures by school or by pupil. APA did learn that the receipt of additional resources outside of regular per pupil operating dollars (e.g., Title I dollars, private donations, student fees) allowed some schools to provide extended day programming. Schools that did not raise these outside dollars were unable to provide such programming. Instead, they required students who were falling behind to give up electives during the regular school day for extra remedial support.

Key Findings

The purpose of this study was to uncover promising practices in Colorado schools that are beating the odds in terms of their ability to close the achievement gap for economically disadvantaged students. Practices found to be unique to individual schools are shared in brief case studies on each school in Section III of this report, followed by an in-depth discussion about the similarities across schools in Section IV. Some of the key findings across schools include:

- *Culture of high expectations and accountability for all students.* The message we heard in every school was that all kids are capable of meeting high expectations and when some begin to fall short, resources and support are leveraged to help them to get back on track. There are no excuses for poor performance, in fact all players in the schools' community – parents, students, and teachers – are held accountable. Roles and expectations of parents are made clear. In many of the schools, parents must sign a compact that clarifies what is expected of them annually. Students are asked to be accountable for their learning as well. Most schools implemented “carrot and stick” techniques to reward students who completed their work on time and demonstrated academic progress and good character.. Those who fail to demonstrate these traits might be required to do homework over their lunch period, to report for mandatory tutoring, to attend a Saturday school program, or to give up an elective class period to finish work in core academic areas. Finally, teachers are held to high standards and strive to reach goals together, as a team, supporting and encouraging each other along the way in small professional learning communities.

- *Targeted assessments and intensive use of data to guide instruction.* These schools love data—from the principals down to the students. In fact, they embrace the notion that thorough collection and analysis of student assessment data is central to their success. All students participate in assessments at key points during the year (e.g., benchmark assessments like the MAPs tests in the Fall and Spring and CSAPs in the Spring). Students who emerge below grade level or on the bubble between one level of proficiency and another receive more intensive and frequent assessments, focused interventions, and regular check-ins every one to two months to gauge progress (e.g., Success for All, Tungsten, Successmaker, DIBELS, Lindamood-Bell). Significant concentrations of resources and time are dedicated to reviewing and discussing data as a staff.
- *Individualized support for struggling students.* The approaches used to address the needs of struggling students can be summed up in two key ways: 1) A focused use of data to identify particular areas of academic deficiency; and 2) the mandatory nature of prescribed interventions for students, which often involve the student having to forego a more enjoyable elective class. As mentioned in the previous bullet, data is used in these schools not only to identify student weaknesses, but to help teachers design strategies to address those weaknesses. But another commonality that exists across most schools is that, when students fall behind, they are often required to attend a mandatory intervention of some sort. This can vary from mandatory summer school or Saturday school, to mandatory tutoring or remediation in place of recess time or an elective class. Regardless of the specific approach, however, the message behind these mandatory interventions is clear. Failure is not tolerated, and those who fail will have to forego popular activities until they can demonstrate required academic proficiency.
- *Active engagement of teachers in school leadership and decision-making.* Teachers are leaders in every school we visited. Teachers were involved in key aspects of decision-making, such as hiring and training new staff members, reviewing data and designing intervention strategies, prioritizing professional development needs with school leaders, taking responsibility for defining and carrying out the school’s educational vision, and as one teacher put it, “doing whatever it takes to ensure that all kids are successful.”
- *Substantial time for collaborative planning and options for professional development.* Almost every one of the eight schools APA visited demonstrated a strong commitment to ensuring that all teachers have time to work collaboratively to review data and to discuss curricular requirements and lesson planning strategies to ensure that performance objectives are met. To provide teachers common time to plan together, the school leaders are willing to use whatever creative means that are at their disposal – from “early release Fridays” at South Park to establishing “duty free” rules at Hotchkiss High School so that teachers can use time that might otherwise be spent monitoring the lunchroom to plan in teams. APA observed that such common planning time not only contributes strongly to the capacity of staff to utilize and benefit from student performance data – which was a key piece to these schools’ success – but also serves to build a strong sense of shared purpose, professionalism, and teamwork among staff members. In keeping with this sense of treating teachers as professionals, the majority of the schools allowed significant input from teachers into the design and delivery of professional development. This encourages teachers to take ownership over the types of training they receive and greatly increases the impact which such training provides. The schools further try to empower teachers to grow through

innovative policies and tailored professional development options. For instance, at Cesar Chavez, teachers are sometimes paid to design and provide training to other teachers in the building. And at Janitell teachers are allowed to earn credits through independent study over the summer focused on lesson planning for the coming year. Such policies provide teachers with options to constantly improve themselves without confining them to a specific professional development plan that might be defined for all teachers by the district.

- *Commitment to core academics and standards but not at the expense of other important learning in the arts and humanities.* A common complaint about schools today is too much “teaching to the test” and not enough opportunity for kids to learn through the arts and humanities. While it is evident that each of these schools takes the CSAPs very seriously, and focuses considerable time and attention to ensure that kids are prepared for such tests, they also noted the importance of other types of learning. For example, in a time when more and more schools are cutting out music, all the schools we visited maintain instrumental music programs. Furthermore, most offered foreign language courses, creative and performing arts, and other programs, especially in the secondary years, designed to broaden students’ knowledge and experience bases (e.g., philosophy, engineering, graphic design, etc.).
- *Stable and consistent leadership.* Principals in most of these buildings have been leading their schools for at least five years. This has given them an opportunity to hire and train staff members who are aligned with their vision. It also means that the school leaders have the institutional knowledge to understand what has and has not worked in the particular school setting, and to implement and sustain reforms over time. In the few schools where the school leader had less than five years experience, APA found that principals had access to an experienced staff, either through the existence of strong veteran teachers or an experienced assistant principal. Access to this staff experience was very important in helping such leaders effectively run the school from both an operational and instructional standpoint. When it comes to leading their staff, these principals are instructional leaders who clearly do not leave their teachers to run classrooms in isolation. Instead, school leaders spend considerable time in classrooms, and use such time to clarify expectations, provide timely, regular, and specific feedback to each teacher throughout the year, offer incentives and rewards for hard work, and hold their staff accountable for results.
- *Small learning communities.* Most of the schools are very small, and the ones that are somewhat larger have organized themselves into smaller learning communities. For example, Cesar Chavez enrolls about 1,100 students but has broken the student body into three grade-level groups, each led by an individual academic director (for grades K-2, 3-5, and 6-8). Smaller schools and learning communities allow students, teachers, and school leaders to get to know each other well. The curriculum and non-academic needs can also be more personalized based on the characteristics and needs of students within the smaller community, and fewer students fall through the cracks due to the individualized attention they get from adults in the building.
- *Flexibility to use resources to support student needs and reinforce school culture.* A majority of the schools APA visited were given a significant amount of resources over which the principal had almost complete discretion. In three of the schools, discretionary funds were in the range of \$50,000 - \$60,000 per year which could be used for a variety of

items including professional development, technology, classroom supplies and materials, and additional staffing support. Two schools, including PSAS and Cesar Chavez had complete discretion at the building level over how and where to invest all of their funding, staffing, and other resources. When we examined resource allocation across schools, APA found considerable variation in how schools allocated their resources, yet all were achieving success. In other words, there was not necessarily a single “recipe” for how to organize a school in order to achieve positive student outcomes. However, school leaders noted that the more flexibility they had over discretionary dollars, the better equipped they were to meet student needs. When asked how they might use an extra \$100,000 per year, school priorities tended to include: (a) support extended day programming (academic and electives), including transportation associated with ensuring that all kids could participate in the extended day; (b) hire more “specials” teachers (e.g., P.E., Art, foreign language, etc.); and (c) add teacher days for professional development and planning. A couple of schools lost their extended day programs this year due to district budget cuts and worried about the academic implications this was going to have on their students.

- *Economically integrated student-bodies.* The purpose of this work was to identify and learn from schools that had closed the achievement gap and where free or reduced price lunch students were performing at higher levels than the average Colorado student. What we found in reviewing the data was that such high performance was more likely to occur in economically integrated schools than it was in schools with higher concentrations of poor students. A few schools emerged with very low percentages of economically disadvantaged kids but we chose to focus on those places where the percentages of free or reduced price lunch kids were higher. When we ran our analysis, however, APA found that no elementary or K-8 school qualified that had more than 70% of their enrollment made up of free or reduced lunch students. For middle and high schools, no school with more than 45% free or reduced lunch enrollment qualified for our study. Instead, in the schools APA identified, the average percent of students eligible for free or reduced price lunch hovered around 65% in the elementary years, 35% in the middle school years, and around 40% in the high school we examined. These percentages, and the fact that no schools qualified for our study that had higher concentrations of economically disadvantaged students, indicate the difficulty involved with closing the achievement gap when there is no enrollment balance in terms of student economic background. Instead, our work indicates that having a more balanced mix of students is more desirable.

Implications & Recommendations for School Districts

- *Schools and students benefit when districts clearly articulate what the expectations are, how learning will be measured, and how schools will be held accountable.* District leadership is responsible for many of the positive reforms discussed above, especially those related to high expectations, assessment and accountability. For example, the Fountain Ft. Carson, Widefield, and Pueblo school districts have clearly articulated what kids need to know (by grade-level), what should be covered in class each month or quarter during the year (in order to ensure that kids meet the standards), and how learning will be assessed (how often, measurements to use, etc.). Every school in the Pueblo 60 district assesses student learning every 8 weeks, even the charter schools. These assessments, along with those used in other districts, are highly correlated to the CSAP so teachers and school leaders can better predict

how well kids will do on CSAPs based on how well they do on their interim assessments. Schools that meet or exceed their CSAP goals are eligible for bonuses in some cases (e.g., in Widefield the school gets a bonus, in Cesar Chavez individual teachers receive the bonuses).

- *School districts can give students more time to learn by exploring how to expand the school day and providing transportation to allow all students the opportunity to benefit from extended day programming.* Nearly all of these schools offer some type of an extended day. In some cases, the programs are open to all kids and include academic and enrichment opportunities. In other cases, the after-school program is mandatory for those requiring remedial or extra support in core academics. Some schools charge fees, on a sliding scale, to pay for their extended day. Others raise private dollars to offset costs not covered through their other public funding sources.
- *Districts can provide greater autonomy to schools by allowing them to use discretionary dollars and staff in ways that best support school-level needs.* For example, the Pueblo School of Arts and Sciences has a flexible staffing arrangement. Core staff members (e.g., math, science, language arts) work a regular day (7:30-3:30) while arts and humanities teachers work a flexible schedule (some start early and end early, others come in at 10am and leave at 5pm). Districts and unions (in places where collective bargaining is used) should consider these types of creative staffing arrangements in order to both extend the day and allow for expanded programming in schools. Most of the principals we interviewed were able to reallocate dollars from one budget line item to another if the need existed. Those who were unable to do so noted their frustration with the restrictions placed on them, and that this limited their ability to use dollars in ways that best match their student needs and the culture of the school.
- *Districts can support schools' long-term success by providing incentives to retain committed veteran staff members while encouraging the recruitment of new teachers.* Stable teaching and instructional leadership were central to the success of the schools in this study. Either the principal, much of the teaching staff, or both had been with the schools we visited for several years. In all cases, veteran leaders were committed to the central tenets of the school and charged with mentoring and indoctrinating new staff members who could carry the torch over time. This provides schools with a built-in, "grow your own" recruitment and training capability.
- *Students are less likely to fall through the cracks in smaller learning communities. As such, districts can support improved student outcomes by creating small schools and/or encouraging larger schools to break themselves up into smaller communities (e.g., grade level teams, professional learning communities by content area, etc.).* These smaller communities can provide more time for students and teachers to develop relationships as well as for teachers to discuss with each other the needs of a more manageable group of students.
- *Districts can create enrollment policies that encourage economic integration through choice.* For example, in places where school choice exists and the number of applicants exceeds available slots, schools can weight the admissions lottery process in order to ensure that a mix of students from various socio-economic backgrounds can attend. Districts can also purposefully target locations or create programs for new schools that will draw a mix of

students from different socioeconomic backgrounds. APA's data demonstrates that students who are eligible for free or reduced lunch do well in such settings and other studies have come to similar conclusions.⁶

⁶ <http://www.tcf.org/Publications/Education/economicschoolintegration.pdf>

II. School Profiles

This section provides information in the form of brief case studies on each of the eight schools visited by APA. While several commonalities exist across schools, each school has unique qualities that are highlighted in their individual case studies. The similarities across schools are discussed in Section III.

Each case study presents information about the school in the following areas:

- School name, enrollment, grades served
- Location: school district, community in which the school is located
- Student characteristics: percent eligible for free/reduced lunch & special education, and percent of students who are English language learners
- Average years of experience for teachers in the building
- Number of years the principal has been at the school
- Description of the school's educational program
- Key reasons for the school's success
- Unique characteristics of the school.

A. Elementary and K-8 School Profiles

South Park Elementary

South Park is a small neighborhood elementary school in the Pueblo 60 school district serving 378 children in grades Prek-5. Pueblo is a small city in Southern Colorado with an estimated population of just under 104,000 people.⁷ The Pueblo 60 school district serves approximately 18,000 students in the city of Pueblo (a separate district serves students residing in the county outside of the city). South Park is one of 22 elementary schools located in the district.⁸

Just over two-thirds of South Park's students are eligible for free or reduced price lunch (68%), 10% receive special education services, and 2% are English Language Learners.

The average teacher has 13 years experience, one year more than the average teacher in the Pueblo 60 school district as whole (12 years experience on average). The school's principal has been at the school for 2 years.

Educational Program: South Park follows the district's curriculum. The teacher and instructional coach that APA interviewed described their school's educational program as "traditional." They focus on standards and teach kids what they need to know for the CSAP. In recent years they have moved towards a more technology-based and less lecture-based instructional strategy.

Key Elements to their Success: "Staff is among the best in the district in the use of data to drive instruction" according to the interviewees. "Data Fridays" (early dismissal each Friday) are used to identify kids needing extra support and services. Staff review data every two weeks to examine progress and make adjustments to interventions based on what the data show. Value-added assessments are used by teacher cohort to determine connections, and disconnections, between teachers and student results. Teachers use a variety of assessments to gauge student learning in literacy and mathematics (e.g., DIBELS, Lindamood-Bell, Successmaker). A half-day 4 yr-old Preschool program and funding for full-day Kindergarten helps prepare kids at the front-end for school and the after-school program provides additional focused support for those falling behind. The school was previously able to serve more students in the after-school program but lost funding this year so two teachers now run the program voluntarily. The school enjoys a veteran teaching staff (many have been at the school their entire careers), two-thirds of whom have master degrees. There are no probationary teachers on staff (with less than 3 years of experience).

Unique Characteristics: This is the only school APA visited that has a pre-school program. Parents seek out South Park for this pre-school, which interviewees described as "the best pre-school program in Pueblo." Parents from outside the attendance area also choose-in to South Park for the full-day Kindergarten because not every school in the district offers a full-day program; or, if they do, there may be a charge to families for the full-day program. Unlike most of the schools APA visited, South Park has a relatively new principal. However, the staff is very experienced and this continuity has contributed strongly to the school having stable and consistent leadership over time.

⁷ Source: www.city-data.com

⁸ Source: District 60 Accountability Report (2006).

Valley View K-8

Valley View is a K-8, 434 student school in the Mapleton School District (a 6,000 student school district located on the outskirts of Denver). All schools in this district are now schools of choice, meaning every student must choose their school instead of being assigned to a neighborhood school. Throughout its history, Valley View has been granted certain autonomies from the district, including autonomy to decide on the type of curriculum it delivers. In 2006, Valley View began an expansion to add a middle school component. This paved the way for reform in the remainder of the district where all traditional middle school programs (grades 6-8) have been eliminated in favor of K-8 or 7-12 grade models. And, like Valley View, all new schools have some type of focused academic program and are schools of choice.

62% of Valley View's students are eligible for free or reduced price lunch, 6% receive special education services, and 35% are English Language Learners (of the eight schools APA studied, Valley View had by far the largest ELL population).

The average teacher has 10 years experience, which is 3 years more than the average teacher in the Mapleton school district as whole. The principal is in her third year at the school.

Educational Program: Since its inception, Valley View has been known as the "back to basics" school in the district. It provides a "traditional, structured environment that emphasizes discipline, academic achievement, and personal integrity."⁹ Students recite the pledge of allegiance every morning and the same structure and routines are present across all grades and classrooms. Teachers emphasized their sense of responsibility not just for students in their own classes, but for all students in the school, telling APA that "All kids are ours, not just those in our individual classrooms." Interviewees also emphasized the importance of rigor, personal relationships with students and colleagues, and a shared sense of responsibility with the principal for ensuring the smooth operation of the school.

Key Elements to their Success: Valley View was started by a group of teachers and continues to be run for the most part by teachers, some of whom have been around for about a-third of the school's 60 year existence. Both students and faculty choose to be at this school because of its curriculum and existing culture. All new teachers go through an extensive induction program run by veteran teachers in the building which quickly initiates all new hires into the culture and expectations of the school. The school's vision, culture, and expectations for all stakeholders (parents, students, teachers, administrators) are clearly laid out in the school's handbook. Extended day programming is offered for students who are falling behind. Students who fail to complete their work on time or who have behavioral issues spend their lunch period in a study hall with a teacher (receiving targeted support based on the recommendations of their home/core content teacher). Various teachers take turns running the study hall. All staff members have been trained on Alpine Achievement and "look at data constantly" according to one interviewee. Historically, as a school of choice, Valley View has had autonomy over such things as curriculum and school day. This autonomy to choose and stick with the curriculum and instructional strategy that supports the school's vision and culture was unanimously seen as the key to their success. However, over the past several years the district has taken away some of the autonomy from Valley View, including forcing it to change its math program this year from what was previously used to a new program that teachers say does not fit well with their instructional approach. Interviewees worry that student math scores will suffer as a result of these forced changes.

Unique Characteristics: Valley View has a relatively new principal (which is not the case in most of the other schools); however, her staff is very seasoned and this continuity of staff members and a sustained focus on the vision and culture of the school among those staff has provided stable and consistent leadership to the school over time. Staff report that parent participation is equally stable, with 100% of parents participating in teacher conferences. In fact, if parents do not show up for conferences teachers go to their homes to conduct meetings. The school uses a Mid-Continent Regional Lab approach to working with ELL students that has been very successful, and the school has extended practices from this strategy to benefit all students.. Valley View was the only Denver metro-area school (from 2004-2006) where the free and reduced lunch students were performing better than the average Colorado student on the CSAP.

⁹ Source: school website: www.mapleton.us/schools/valleyview-a.html

Cesar Chavez Academy

Cesar Chavez is a K-8, 1100 student charter school in Pueblo. The school is run by a for-profit Education Management Organization (EMO) that also runs a charter high school in Pueblo and two charter schools in Colorado Springs. Cesar Chavez's founder runs both the school and the EMO. Considerable tension exists between Cesar Chavez and the district under which it operates (Pueblo 60) because Cesar Chavez has attracted about 10% of the K-8 student population away from district-operated schools and has expressed a desire to serve more kids in additional charter schools if given the opportunity. The founder and his wife are Pueblo natives and started the school after returning to town from Boston, where the head of school was working at Harvard University. By far, Cesar Chavez is the most successful school in Pueblo as well as the most successful school (in terms of performance on the CSAP) among all eight schools we examined.

63% of Cesar Chavez's students are eligible for free or reduced price lunch, 12% receive special education services, and 11% are English Language Learners.

The average teacher has 8 years of experience compared to 12 years in the district as a whole. The principal and his wife started the school in 2000 and both have remained in leadership roles ever since. In addition, three staff members serve as academic directors of grades K-2, 3-5, and 6-8.

Educational Program: All students attend Cesar Chavez for an extended day (8am – 4pm) and wear school uniforms. Several curriculum and instructional programs are used: the Core Knowledge Scope and Sequence, Success for All reading program, Accelerated Learning Program to allow kids to work at their own pace or move ahead in certain areas, the Jon Collins writing system, two math programs (Investigations and Saxon), and various electives, including Mariachi, art, and computer classes. Electives are created based on parent and student input and interests. Both half and full-day Kindergarten are options and students may participate in a variety of after school sports and clubs.

Key Elements to their Success: The school has a charismatic leader who has hired a very talented, devoted group of teachers and teacher leaders. Cesar Chavez approach to staffing is that it is “always hiring”—if they find a teacher that appears to be a good fit for the school, they find a place for that person regardless of whether a position is currently open. Many such persons serve as tutors until they are experienced or trained to a level that is appropriate for a teacher and an opening is available. “Only stars are hired to teach in the classroom right off the bat,” one interviewee stated. While Cesar Chavez is by far the largest school of the eight APA studied, it has created smaller learning communities within the school that are led by experienced instructional leaders. Within each of these learning communities teachers work together under the leadership of their academic director to achieve individual and school-wide goals. Teachers have two planning periods and an hour lunch per day. Assessment coordinators are responsible for analyzing and sharing data at the beginning of the year and every eight weeks thereafter. Students who are below grade level receive extensive one-on-one tutoring. Those who do not pass assessments are not allowed to go to electives until they receive passing grades. The Cesar Chavez management company has raised millions of dollars over the past few years to support its four schools. In 2007 alone, Cesar Chavez received about \$250 more per student above their regular per pupil funding. The school has also garnered strong political support from the community. The school also operates under a different calendar than others in the district and has a 210 day school calendar (175 teaching days, 35 professional development days). Teachers work about 30 more days a year than other district teachers, and the added time is mostly devoted to professional development over the summer.

Unique Characteristics: Cesar Chavez's school library operates as a public library until 6pm each day and has one of the highest circulation rates in the city. This draws people into the school and helps build strong relationships with the surrounding community. To support the fact that many teachers work long hours, the school established a free after-school day care program, open until 6pm, for staff members' children. All teachers at the school are eligible for a \$3,000 bonus annually if they reach their individual performance goals, have perfect attendance, and the school meets its CSAP goal (teachers receive a lower bonus if they hit only one or two of these goals). Bonuses are not paid out until the following Fall, which provides an added incentive for teachers to stay with the school each year. Teachers are also eligible for \$1500 for tuition to advance their own education; however, those who take this money must sign a 2 year “non-compete” agreement (which helps protect the school's investment by denying the teacher the ability to take a teaching job elsewhere in the district for two years). Staff review not just student performance data but all data pertaining to the school, including attendance. A review of attendance data in fact found that, at certain times during the year, attendance dipped. To minimize the impact on student performance, the school year was restructured to create in-service days at times of typical peak student absences.

Pueblo School for Arts & Sciences

Pueblo School for Arts and Sciences (PSAS) is a K-8 charter school serving 350 students. Over a decade in operations, PSAS is one of the oldest charter schools in Colorado. The school is chartered by the Pueblo 60 school district and run in partnership with Colorado State University (CSU). CSU holds the charter and its Board of Governors is responsible for the school. PSAS' principal reports directly to the CSU Provost.

About two-thirds of PSAS' students (67%) are eligible for free or reduced price lunch, 7% receive special education services, and 1% are English Language Learners.

The average teacher has six years of experience compared to 12 years in the district as a whole. The principal has been with the school for six years and previously served in administrative positions for the Pueblo City and County school districts. Relationships she has with district leaders have helped to create a positive relationship with their sponsoring district.

Educational Program: PSAS is a school that follows the Paideia educational philosophy. This educational program emphasizes teaching via seminars that integrate the arts, foreign language, and humanities with core academic subjects. Students also engage in service projects in their communities and all decision-making in the building is done by consensus. In addition to Paideia, PSAS uses Success for All, a research-proven reading program. PSAS teachers receive extensive professional development each year from Success for All (17 days) and have a Paideia specialist on-staff to provide in-house support and training on the Paideia model. PSAS is recognized as a national Paideia demonstration school. All Kindergarten students attend PSAS for a full-day at no extra charge. Federal Title 1 dollars support the school's full-day kindergarten.

Key Elements to their Success: As a Paideia school, all faculty members and families have a voice about important decisions affecting the school community. A representative group of stakeholders (parents, teachers, school leader, support staff) participate in all hiring decisions. Teachers describe themselves as "maverick" and describe PSAS as a "school of leaders." PSAS has put together a strong team of experts who focus on core academics (reading, math) as well as the arts and humanities (e.g., foreign language, performing and visual arts, instrumental and choral music, community service). Students take Success for All testing every 8 weeks. Four full-time specialists on staff examine these data results and design individualized plans for kids who are below grade level or on the bubble (close to jumping from one proficiency level to the next). Additionally, the specialists teach small groups of kids, work with teachers to share data and discuss instructional strategies, and conduct professional development. The school day is up to two hours longer than in other district schools. About 160 students participate in the extended day program. Classes are staffed by PSAS staff, CSU-Pueblo staff and students, retired teachers, and District 60 teachers. Grades are given for these courses. Additionally, some students receive additional tutoring in whatever subject necessary (core subjects and electives). Tutoring may occur during the day, after school or before school. PSAS does not promote the practice of pulling kids out of an elective or humanities course in order to work on core content areas. Some students are required to attend Saturday school once a month if they are "academically deficient." Teachers work on a staggering schedule to cover the longer day (different start and finish times). All teachers get 80-120 minutes of planning time each day, including joint planning time with their grade and content-level peers. Staff development and common time for planning is a central component and large budget item for the school. This investment in professional development has yielded positive results, including the creation of stronger instruction and curricula. Supporting both the academic and emotional needs of students is a high priority, and the school's guidance counselor is a student advocate who provides family support and organizes events and learning opportunities for parents at the school. PSAS also raises a significant amount of funding on top of their regular per pupil operating dollars. Through student fees, grant raising, and other contributions, the school raised an additional \$500 per student in 2007.

Unique Characteristics: PSAS' commitment to community service sets it apart from most other schools. Its annual "empty bowl" fundraiser (featuring pottery made by students) raised \$9,000 in 2006 for the local homeless shelter. In addition, students must do two other service projects: one with their entire class and a second with their family (parents must commit to this service project as part of a signed annual parent compact). English language courses are provided after school for parents one hour each day.

B. Middle School/Junior High School Profiles

Carson Middle School

Carson Middle School is located in a beautiful new building on the grounds of the Ft. Carson military base near Colorado Springs and serves 520 students in grades 6-8. Given that nearly every student who attends the school has a connection to the military, the turnover rate the school experiences annually is quite high—40% turnover annually due to military transfers. On average, the school cycles through about 750 students per year. Despite this high turnover, Carson kids are performing very well academically. Carson Middle School is part of the Fountain/Ft. Carson School District which serves about 6,000 students, K-12, residing in communities to the south of Colorado Springs.

Just over one-third of Carson's students (35%) are eligible for free or reduced price lunch, 11% receive special education services, and 2% are English Language Learners.

The average Carson teacher has eight years of experience compared to nine years among teachers in the district as a whole. The principal has been with the school for six years.

Educational Program: Carson is a liberal arts school that teaches core academic subjects in conjunction with the arts and humanities. A standards-aligned curriculum guides the content to be covered in each class. Students in each grade may take elective courses in performing and visual arts, instrumental music, rocketry, applied physics, computers, leadership, and others. Students participate in monthly assessments that are correlated with the CSAP (Tungsten). Every student spends time in a homeroom each day. This time is used to build community as well as provide small-group instruction for kids needing extra support. Anti-bullying and character education emphasize time management, respect, values, and school expectations.

Key Elements to their Success: Teachers are provided with pacing maps and specific objectives to cover each quarter. They are held accountable for covering this content by the school principal who conducts about 30 informal "spot observations" (walkthroughs) in each classroom per year and provides immediate feedback to teachers following the observation. Response to Intervention and Leadership teams meet regularly with teams of teachers to share assessment data and to develop plans on how to respond to individual students' needs and/or modify instruction in order to improve performance. Students are responsible for setting goals and keeping a data book that tracks their performance over the school year. They check in every one to two weeks with their teacher on progress in meeting their goals and share this information with parents at conferences. Students who are falling behind are required to attend mandatory after-school tutoring. Discretionary funding pays for a bus to transport these students home after their tutoring. About 30 kids at a time with learning gaps are identified to attend a mandatory academic support class instead of an elective.

Unique Characteristics: Carson benefits from extensive in-kind resources provided by the military including significant health and human services support. Counselors spend considerable time with students and families affected by deployment, military personnel mentor new students, and officers' wives raise money for the school. A strong culture of discipline and respect exists among students, staff, and parents due in large part to military connections. Despite its high performance, the school continues to innovate and started a pilot project this year using writing as a litmus test to track longitudinal academic growth for about 20 students per grade. If successful, this program will be expanded to the entire student body.

Janitell Junior High

Janitell serves 494 students in grades 7-8. It is one of three junior high schools in the Widefield School District in Fountain, Colorado. Given its close proximity to the Ft. Carson Military Base, Widefield schools serve a large population of military families. About half of the students at Janitell are touched by the military in some fashion. However, while Janitell can refer students to the military for support, it does not receive the type of in-kind support that schools located on the military base receive (e.g., health and human services support, facilities funds).

About a quarter of Janitell's students (27%) are eligible for free or reduced price lunch, 9% receive special education services, and 0% are English language learners.

The average Janitell teacher has 11 years of experience compared to 10 years among teachers in the district as a whole. The principal has been with the school for 2 years. The Assistant Principal has been there for several years and has provided consistent leadership to the school, according to interviewees, because the principal position turns over every 3-5 years as principals are typically promoted to district administrative positions.

Educational Program: Janitell is a traditionally-organized junior high school where students attend a series of 50 minute classes each day. The school uses the district's standards-based curriculum and the district provides each school building with scope and sequencing calendars that detail the standards to be covered each month over the course of the year. Areas covered by CSAP testing must be covered and mastered first. Janitell is the only junior high in the district with a music program. Others have abandoned such a program either because they did not have the student numbers to support it or because they chose to focus on core academics instead. About 25 students choose into Janitell each year from other attendance areas because of the school's high CSAP scores and music program.

Key Elements to their Success: Teachers are organized into grade-level professional learning communities and meet daily during common planning times to examine data, discuss individual students, and plan lessons. Either the principal or the assistant principal spend time in each class daily and provide teachers with input and feedback on their observations. Students take the Tungsten assessment monthly to measure progress in learning material required by the CSAP. Data from these tests are used to design whole-class interventions when necessary. Individual interventions are more difficult, one interviewee stated, because the 50 minute periods are too short to focus on individual students. Students are also given "no fail" tests which, if they do not pass, they are required to attend a lunchtime remediation program. Students are not permitted to return to their regular lunch period until the test is passed.

Unique Characteristics: Using value-added growth analysis as an indicator, the district provides incentives for high CSAP scores. Schools that demonstrate growth on the CSAP receive financial bonuses that can be used at the principal's discretion. A PRIDE program is conducted at the school which includes assemblies that allow students who have demonstrated good character, behavior and academic success to miss the last period of class once per quarter for fun activities and assemblies. About half of the kids in the school participate in these programs which the principal reports are a strong incentive for students.

Cedaredge Middle School

Cedaredge is a small middle school of 226 students, grades 6-8, in Delta County, Colorado. Delta is a rural county on Colorado's western slope, 300 miles southwest of Denver, comprised of about 30,000 people. The county has experienced growth in recent years due to an influx of retirees and business people interested in running vineyards/wineries. The cost of housing is high, which makes it difficult for teachers to afford to live in this area. The district covers over 1700 square miles in Delta, Gunnison, Montrose and Mesa counties with schools in the communities of Cedaredge, Crawford, Delta, Hotchkiss and Paonia serving over 5000 students. Individual schools are responsible for choosing their curriculum and hiring their staff and each receives a reasonable discretionary budget for which decisions about how it is spent are made at the building level.

45% of Cedaredge's students are eligible for free or reduced price lunch, 9% receive special education services, and 1% are English Language Learners.

The average Cedaredge teacher has 8 years of experience compared to 10 years among teachers in the district as a whole. The principal has led the school for eight years.

Educational Program: A couple of years ago Cedaredge staff members identified schools in Colorado where students were achieving at high levels and set out in teams to visit those schools. Aspects of the school's educational program today were created in response to these visits, including: organizing the school into professional learning communities by grade-level, full inclusion of Special Education students into regular classrooms, extensive use of assessment data, and allowing students to choose their CSAP proctor. The three schools in Cedaredge collectively decided on the curriculum to use and developed the scope and sequence for delivering the curriculum.

Key Elements to their Success: The district gives the principal considerable flexibility in hiring staff and allocating discretionary dollars (between \$50,000- \$60,000) towards specific school-level needs. The school is also small and has an intimate, family-style atmosphere where, as one interviewee put it, "everyone knows each other." Teachers also know their students well and have a manageable group of kids to work with each day. Instead of micromanaging, the principal's philosophy is to lay out clear expectations and to give teachers autonomy to get the work done. The principal does spend time in new teachers' classrooms several times per week coaching and supporting them. The school's motto is to: "stay on track 10 out of 10" which means plan for "10 days, teach 10 days, no days off, no breaks." This motto applies to students as well, and those who receive low grades (Ds and Fs) are required to opt-out of an elective and report for tutoring. About 10% of students participate in a reading enrichment program focused on vocabulary and reading comprehension. Once these students are back at grade level, they can return to their elective class. For advanced students, an accelerated, computer-based, math program provides opportunities to properly challenge themselves.

Unique Characteristics: Given the school's small size, it is difficult to afford some positions that others have, like a full-time counselor. The school's response to this issue is that some teachers wear several hats. For example, the physical education teacher spends two periods per day providing counseling support. The principal hires all staff members by attending job fairs, often located in other states. The district does not have a collective bargaining agreement or teachers union.

C. High School Profile

Hotchkiss High School

Hotchkiss High School serves 259 students in grades 9-12 and is located in Delta County, Colorado. Hotchkiss is the only high school in town and is the social centerpiece for much of the community. The Booster club raises money for the school and many come out each weekend for sporting events and other activities occurring at the school. Delta is a rural county on Colorado's western slope, 300 miles southwest of Denver, comprised of about 30,000 people. The county has experienced growth in recent years due to an influx of retirees and business people interested in running vineyards/wineries. The cost of housing is high in Delta County which makes it difficult for teachers to afford to live in this area. The district covers over 1700 square miles in Delta, Gunnison, Montrose and Mesa counties with schools in the communities of Cedaredge, Crawford, Delta, Hotchkiss and Paonia serving over 5000 students. The schools within each community are responsible for choosing their curriculum and hiring their staff. Each school receives a relatively large discretionary budget that can be allocated based on the needs of the individual school and students they serve.

38% of Hotchkiss' students are eligible for free or reduced price lunch, 8% receive special education services, and 2% are English Language Learners.

The average Hotchkiss teacher has 11 years of experience compared to 10 years among teachers in the district as a whole. The principal has led the school for 9 years.

Educational Program: Students start out the day at Hotchkiss with an advisory period and electives and then move on to their core academic programs. Students who want to earn college-level credits while in high school can participate in the dual/concurrent enrollment program—a partnership between Hotchkiss and Mesa State College in Grand Junction. About 20% of students graduate from Hotchkiss with both a diploma and their Associates Degree and another 20% have 40 or more hours of college-level coursework under their belt when they graduate from high school.

Key Elements to their Success: The district gives the principal of Hotchkiss considerable flexibility in hiring staff and allocating discretionary dollars (between \$50,000- \$60,000) towards specific school-level needs. Each teacher knows what is expected and visibly identifies in their classroom the outcomes they expect to achieve daily. The school's small size allows the leaders (the principal and assistant principal) to spend time in classrooms each day providing informal feedback to teachers and to cultivate strong relationships with students. In partnership with his leadership team (which includes several experienced, lead teachers) the principal decides the focus of the professional development program each year. This ensures that teachers have significant input into the type of training they are given. As a result, teachers are enthusiastic about their training opportunities, and donate several days of their time (unpaid) each summer for professional development. Data plays a central role in the school's planning and all staff members play a role. The school's counselor analyzes assessment data, the principal and teachers meet to review the data and make decisions about extra supports needed for individual kids. All students take benchmarking tests in both the Fall and Spring (MAPs tests) and those who were below grade level in the Fall take the test again in the winter. Interventions are weighted toward freshman and sophomore students to ensure that problems are addressed as early as possible in the high school experience. Several teachers tutor students who are falling behind, and this tutoring takes the place of an additional class. Selected students are required to attend tutoring in place of an elective.

Unique Characteristics: Hotchkiss is a "duty-free" school which means that none of the teachers are responsible for lunch, bus, or other duties during the day. Instead, they receive extra planning time to work within their professional learning communities. The principal conducts 10-15 home visits per year to families whose children are experiencing academic or behavioral difficulties. About 85% of students graduate from Hotchkiss each year, despite the fact that more than half come from divorced or financially struggling homes.

III. Comparing APA’s Findings with Existing Research

While APA learned a great deal in its visits to the eight schools, we did not feel comfortable using that information alone as the basis for policy recommendations (due to the size of our sample and the nature of our research—social science as compared to empirical research). As such, APA felt it important to anchor our research findings with previous research we had done as well as with other studies conducted in high performing schools serving high poverty students (“beat the odds” schools).

APA’s findings in the eight schools visited are consistent in large measure with other literature we reviewed on schools that beat the odds and on research findings regarding the types of programs and services that can improve student performance.¹⁰

Key Findings across the eight schools examined by APA

- Culture of high expectations & accountability for all students
- Targeted assessments and individualized support for struggling students
- Active engagement of teachers in school leadership and decision-making
- Substantial allocation of time for collaborative planning and professional development
- Delivery of challenging coursework in core academics *and* in a wide-range of other areas (e.g., arts, humanities, electives)
- Stable and consistent school leadership
- Commitment to small learning communities
- Flexibility to use resources at school site to support needs and reinforce culture
- Economically integrated student body

Alignment of APA’s findings with other studies

The Center for Education Performance Assessment’s work in schools with 90% proficiency, 90% poverty, and 90% minority students found common principles across these schools including: laser-like focus on academic achievement through the use of data, intervention strategies, and multiple opportunities for improvement; clear curriculum choices (often core subjects being taught in place of electives), emphasis on non-fiction writing (because writing crosses curricular areas), and teacher collaboration (with a specific focus on collaborative scoring of student work to ensure accuracy/validity). APA saw evidence of each of these areas in the schools we visited. Some were more prevalent than others. For example, only one school discussed their use of writing as a key area of focus to identify student needs (Carson Middle School). On the other hand, all schools were highly focused on data, interventions, and academic outcomes; most substituted electives with remedial work for students who needed extra support, and all had high levels of teacher collaboration.

¹⁰*High performance in high poverty schools: 90/90/90 and beyond* (D. Reeves, Center for Education Performance Assessment, 2003); *Final report: High needs schools, what does it take to beat the odds?* (McREL, 2005); *K-8 charter schools: Closing the achievement gap* (WestEd, 2007); *Attributes/elements of high performing schools* (research synthesis by K. Knous-Dolan, Donnell-Kay Foundation); *Economic school integration: An update* (R. Kahlenberg, The Century Foundation, 2002); *Pennsylvania State Board of Education Costing Out Study: Evidence Based Method* (Research review conducted for APA by the Educational Policy Improvement Center, 2007).

The Century Foundation's work on economically integrated schools indicates that low income students perform better in schools that are majority middle class populations than they do in schools with high concentrations of low income students due to positive influences of peers, parents, and teachers in higher socio-economic schools. The United States Department of Education identified similar results in its *Condition of Education* report in 2002. When APA conducted its analysis to identify schools in Colorado that had closed the achievement gap, none of the schools in the state with high concentrations of poverty emerged as having closed the gap for at least three years. Among the schools that did make the cut, APA chose those with the highest concentrations of students who qualified for free and reduced lunch (see Table 1 in the Executive Summary for more information about each school). However, all of the schools we examined were economically integrated. Half had 60% or more who qualified for free or reduced lunch and the other half were majority higher income, minority lower income. In all cases, the high poverty students in these schools were out-performing students with similar demographics in other schools in the state. The schools that APA studied were either integrated through choice (e.g., charter schools that attracted a socio-economically diverse group of applicants) or they were located in communities that reflected the socio-economic make-up of the school (families in area attended their neighborhood school).

WestEd found common elements across a group of charter schools they studied that were closing the achievement gap, including: a shared vision and mission among all stakeholders; use of data to ensure students understand and master content; clear expectations and roles for parents; strong leadership and accountability; flexibility to innovate and allocate resources to meet school-level needs; and ongoing professional development of teachers. These findings are very consistent with APA's. One exception is that a few of the school leaders in our sample did not have a large degree of autonomy over their resources and indicated the challenges this raised and a desire to have more flexibility to utilize resources in ways that better meet the needs of their students.

McRel did an extensive review of the literature on high performing, high poverty schools and a study on elements found in high poverty, high performing schools compared to high poverty, low performing schools. They found that high performing schools were more likely than low performing schools to possess the following characteristics: teachers with a high sense of responsibility for student learning, including an expectation that all students will achieve at high levels; engagement of teachers as leaders and decision-makers who work in a highly developed work culture focused on continuous improvement; focused professional development on meeting the needs of diverse learners and in core content areas; use of multiple assessments and data to inform adaptive and individualized instructional practices to meet students' needs; clear goals and expectations for students with consistent rewards and punishments for student behavior; highly challenging content and cognitive demand in class work; clear expectations for parental involvement; and an effective instructional leader. These findings from McRel are highly consistent with those found across all of the schools that APA studied.

The Donnell-Kay foundation conducted an in-house synthesis of selected literature on high performing, high poverty school models operating multiple schools in urban communities (e.g., charter management organizations, school networks). This review of the literature highlighted key attributes of these schools, including: schools that were small, safe, and personalized; school cultures focused on academic achievement and high expectations; rich (standards-based) curriculum delivered through rigorous instruction; strong instructional leadership; extensive professional development for teachers and principals; more time on task including longer school days/years; meaningful assessments and use of data to drive instruction; flexibility over resources at school sites and more dollars directed into classrooms; partnerships with parents and caregivers; and student voice and participation. The only finding here that did not surface much in APA’s work was the last one addressing student voice.

As part of a recent APA costing out study for the Pennsylvania State Board of Education, the Educational Policy Improvement Center (EPIC) located at the University of Oregon conducted a comprehensive review of education research literature from across the country. This review was designed to identify educational strategies that are likely to be effective in schools and to improve student performance. As part of this effort, EPIC researchers located, read, and evaluated hundreds of sources on effective educational practices. The research process first sought to identify educational strategies for which there was direct evidence of improvement in academic performance. Second, researchers reviewed strategies that may have indirect impacts on performance, such as behavioral support programs and student activities. Several strategies identified by EPIC match directly with APA’s work. These include: providing extended day programming, such as summer school, specifically targeted at students that are not meeting academic standards; adding additional time for teachers to engage in professional development, improve content knowledge, and improve teaching strategies; offering a variety of activities, including music, art, school clubs and other activities to keep students engaged in school; ensuring that administrators have the tools they need to effectively run schools; and providing targeted tutoring services, either during or outside of school hours, to ensure that struggling students have additional direct access to instructional support.

A comparison of APA’s findings with those from these other research studies is presented in Table 2 below. This table also identifies the schools where strong evidence of each particular finding existed. As the table shows, there is significant overlap with the research findings and what APA found in visiting the schools included in the current study. For example, every school we visited demonstrates the importance of purposefully allocating time for teachers to collaboratively plan and benefit from professional development. This strategy is also supported by five of the six other studies APA reviewed.

Key Findings	Evidence of Findings in Other Research ¹¹						Evidence of Findings by School							
	CEPA	Century	WestEd	McRel	DK	EB	Cesar Chavez	South Park	Valley View	PSAS ¹²	Carson	Janitell	Cedaredge	Hotchkiss
Culture of high expectations & accountability for all students	X		X	X	X		X	X	X	X	X	X	X	X
Targeted assessments and individualized support for struggling students	X		X	X	X	X	X	X	X	X	X	¹³	X	X
Active engagement of teachers in school leadership				X	X		X	X	X	X	X	X	X	X
Purposeful allocation of time for collaborative planning and professional development	X		X	X	X	X	X	X	X	X	X	X	X	X
Delivery of challenging coursework in core academics <i>and</i> in a wide-range of other areas (e.g., arts, humanities, electives)¹⁴			X		X	X	X		X	X	X			
Stable and consistent school leadership				X		X	X		X ¹⁵	X	X	X ¹⁶		
Small learning communities¹⁷			X		X		X	X	X	X	X	X	X	X
Flexibility to use resources at school site to support needs and reinforce culture			X	X	X		X		X ¹⁸	X		X	X	X
Economically integrated student body		X					X	X	X	X	X	X	X	X

¹¹ See footnote 8 for full citations of studies and text above table for more info about each study's finding. Abbreviations used are defined as follows: *CEPA* (Center for Education Performance Assessment), *Century* (Century Foundation), *DK* (Donnell-Kay Foundation), *EB* (Evidence-Based approach to school finance adequacy)

¹² "PSAS" is the Pueblo School for Arts & Sciences

¹³ Janitell students did take frequent assessments, especially those below grade level; however, intervention was individualized for special education students with IEPs only; otherwise teachers adjusted classroom instruction for all kids to try and meet unique gaps that surfaced in assessments

¹⁴ Some did this by extending the day (e.g., Cesar Chavez, PSAS) while others were able to accomplish it during the regular school day (e.g., Carson). This does not include after-school time spent in clubs or athletic activities for selected kids but instead coursework that all kids are required to participate in (in some cases an elective might be exchanged out for academic support for selected students). Janitell had less of a "wide range" than others; however, it was the only middle school in district to still offer a music program.

¹⁵ At Valley View the stable leadership is not attributed to the principal (she is relatively new) but instead to selected teacher leaders who have been there for many years.

¹⁶ At Janitell it is the Assistant Principal who has been at the school for many years and provides stable and consistent leadership. Principals at this school tend to turnover every 3-5 years.

¹⁷ Small learning communities encompasses one or more of the following: small school, large school broken up into small communities of students and professionals, small class sizes.

¹⁸ Valley View historically has had considerable flexibility but noted that this has begun to change in recent year which raises concern among the leadership of the school

IV. Conclusion

The findings in this study offer several valuable results for policymakers and education leaders interested in closing the achievement gap for economically disadvantaged students. First, the study offers a data-driven methodology that effectively and impartially identifies schools that have proven an ability to close this gap. Second, it offers an important view inside the buildings of these schools so that others can learn from the types of programs and strategies they use. Third, it corroborates the importance of the identified programs and strategies by comparing them with the findings of other research studies that have been conducted across the country. These three aspects combined lend added confidence to this work.

But the question remains as to how other districts schools can best implement these findings on their own. Such implementation would seem to be a ripe area for future work to close the achievement gap, and APA offers two observations in this regard.

First, as mentioned in this report, there are several key areas which surfaced in the schools APA studied, including:

- A culture of high expectations and accountability for all students
- Use of targeted assessments and individualized support for struggling students
- Active engagement of teachers in school leadership and decision-making
- Substantial allocation of time for collaborative planning and professional development
- Delivery of challenging coursework in core academics *and* in a wide-range of other areas (such as arts, humanities, and other electives)
- Stable and consistent school leadership
- Commitment to small learning communities
- Flexibility to use resources at the school site to support needs
- Existence of an economically integrated student body.

Second, while these areas are clearly important to success in closing the achievement gap APA believes that, after spending time visiting the schools in this study, it is important to understand how the individual practices combine to produce overall success. For instance, we found that mandatory interventions for struggling students were an important strategy that many of the studied schools use to close the achievement gap. However, such interventions would not be nearly as effective without the schools' dedication to the use of assessments which generate data needed to identify specific student academic weaknesses. In turn, such assessments would not be as useful if teachers were not provided with substantial time to collaboratively review data, to plan instruction, and to benefit from professional development. Nor would such professional development be as effective if teachers were not given an important role in helping decide the nature and scope of provided training. Looked at in this way, the effects of these strategies should be viewed not in isolation, but in the cumulative positive impact they can have on a school or district targeted for improvement.

Finally, we want to emphasize that a few schools may have made it into this study, including those in the Denver metropolitan area, but did not because they were too new to have three years of consecutive data. Furthermore, the data we examined did not take into account the growth that students may make in a school over time. Further analysis to examine the qualities inherent in a broader number of schools that are beating the odds, such as focusing on schools that are consistently making gains with students (where all students continue to improve over time), and those that are graduating high percentages of kids and sending them to college, are future pieces of work that would be well worth pursuing.

Appendix

Schools where students eligible for free or reduced price lunch closed the achievement gap across three consecutive years in at least two grades (2004-2006)

APA selected schools of varying grade configurations, sizes, demographics, and locations. **Each of the schools that we visited also had closed the gap in multiple grades across the various subjects tested by the CSAP. Each of the schools listed in the chart below are places where the students who were eligible for free or reduced price lunch performed better on the CSAP than the average Colorado students in at least two subject areas in two grades tested for three consecutive years (2004-2006).** We felt that it was important to look at “regular” schools along with those with unique educational programs or governance configurations, including charter schools. We also chose to mix in schools that were scoring well above the mean with those scoring closer to the mean in order to ensure that the study was not overly focused on outlier schools whose performance might be attributed to their unique location, student population, or other unusual factors. Finally, we chose to eliminate schools where the population of students that were eligible for free or reduced price lunch was less than 50% of the total population in elementary schools and 33% in middle and high schools. Schools that did not have three consecutive years of data were not factored into this study (e.g., schools that opened new in 2006 or 2007). And, schools where we didn’t have data for a particular grade were also eliminated (e.g., the number of students who took the exam was small so the data are not shared broadly for privacy purposes). The table on the following pages displays those that did meet our criteria. The schools we chose to visit are highlighted.

**Schools where students eligible for free or reduced price lunch
closed the achievement gap across three consecutive years in at least two grades
(2004-2006)**

School District	School	Percent of Population Eligible for Free or Reduced Lunch
Academy 20	Mountain Ridge Middle School	12%
Archuleta County	Pagosa Springs High School	27%
Delta County	Cedaredge Middle School	45%
	Hotchkiss High School	38%
Denver County	CEC Middle College Program	67%
Falcon	Ridgeview Elementary School	15%
	Stetson Elementary School	12%
Fountain	Aragon Elementary School	61%
	Jordahl Elementary School	27%
	Carson Middle School	35%
	Fountain Ft. Carson High School	23%
Garfield	Cactus Valley Elementary School	43%
Harrison	James Irwin Charter Middle School	21%
Jefferson County	Bear Creek Elementary School	19%
	Falcon Bluffs Middle School	9%
Mapleton	Valley View K-8	62%
Mesa County Valley	Orchard Ave. Elementary School	41%
	Taylor Elementary School	41%
Monte Vista	Monte Vista Senior High	61%
North Conejos	La Jara Elementary School	67%
	Manassa Elementary School	72%
Pueblo City 60	Belmont Elementary School	61%
	Beulah Heights Elementary School	75%
	Carlile Elementary School	77%
	Cesar Chavez Academy (K-8)	63%
	Columbian Elementary School	91%
	Goodnight Elementary School	63%
	Heritage Elementary School	64%
	Highland Park Elementary School	55%
	Minnequa Elementary School	89%
	Pueblo School for the Arts & Sciences	67%
	South Park Elementary School	68%
	Sunset Park Elementary School	40%
Pueblo County 70	Sierra Vista Elementary School	29%
	Sky View Middle School	23%
	South Mesa Elementary School	49%
Trinidad	Trinidad High School	43%
Widefield	Janitell Junior High	30%
Woodland Park	Woodland Park Middle School	21%