COLORADO CLOSING THE ACHIEVEMENT GAP COMMISSION

INTERIM REPORT

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Acknowledgements

This is the interim report of the Colorado Closing the Achievement Gap Commission, as authorized under C.R.S. 22-7-612.

Commission members include co-chair Bill de la Cruz of the Colorado Coalition of Hispanic School Boards; co-chair Rachel Nance of the office of Governor Bill Owens; Cameron Lynch of the office of Governor Bill Owens; John Sleeman of the office of Colorado Attorney General Ken Salazar; Dwight Jones, Superintendent of the Fountain-Fort Carson School District 8; Oscar Joseph of the University of Colorado at Denver, School of Education; Karen LeFever of the Edison Schools, Inc., Western Region; Phillip Moreno, member of the Weld County 6 School Board; Monte Moses, Superintendent of the Cherry Creek School District; and Ken Santistevan of the Hispanic Chamber of Commerce.

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Because of space limitations, the research and examples included in this report are neither all encompassing nor comprehensive, and instead represent only a selection. Omission of other pertinent examples of successful outcomes or strategies is in no way intended to exclude the importance of those efforts.

Foreword

There is a lion in the streets. It threatens every citizen. It endangers the future of our society.

This threat is the deplorable level of educational attainment that is the fate of the great majority of our poorest and most vulnerable children, a population disproportionately black, and Latino.

More than a third of the century, after he decried this situation as a "stain on our national honor" the educational conditions Robert Kennedy described are demonstrably worse.

That a nation of unparalleled wealth, matchless military strength, undreamed of progress in science and medicine, and home to history's greatest democracy can tolerate this failure is shocking. Yes, individual schools sometimes defy the odds, but whole systems almost never do.

Why? What are the reasons for this failure?

It has to do with both will and skill and the reasons illuminate the fact that minority and poor youth are often seen as not worthy of our finest efforts. This needs to be said.

The conditions of educational desolation that this Commission decries are to be largely found on streets that the movers and shakers of our society rarely walk; and in schools where their children cannot be found.

However, perhaps the greater shame is that such conditions are also found in the schools that serve our society's privileged children. Despite the promises of Brown vs. Board of Education, many of our children receive separate and unequal education even in the same classroom.

Pouring billions of dollars into a search for solutions has eased the conscience of the fortunate but has not succeeded in saving those children who continue to be victimized by our abject failures.

Elected officials, business leaders, foundation heads, learned professors, and assorted educators, have debated this situation for decades and seem entirely content to continue doing so for several more decades.   It is time to move beyond debate and focus on real solutions that will help children now.

> *We can, whenever and wherever we choose, successfully teach all children whose schooling is of interest to us.*
>
> *We already know more than we need to do that.*
>
> *Whether or not we do it must finally depend on how we feel about the fact that we haven't so far.*
>
> *Ronald Edmonds, 1974*

Since these words were spoken by Edmonds – founder of the Effective School movement, arguably our greatest education reformer and incidentally an African American – thirty years have passed and we can only conclude that as a society we don't feel badly enough "about the fact that we haven't so far" chosen to successfully teach all children. Critics might well say those children are not among those whose schooling is of interest to us.

Not surprisingly, we have found a fairly benign phrase to describe this catastrophe: "the achievement gap." It is more comfortable than another phrase: "the soft bigotry of low expectations."

To some ears, the words of the Commission may seem unduly harsh, however it is our feeling that nothing less than language such as this will suffice to summon that true sense of urgency so long overdue.

It is the desire of this Commission to be different from most others. It is not our wish to have our report received, filed, be thanked, and sent away.

Instead, it is our fervent wish to honestly describe a frightening reality, and offer some very specific recommendations, which we believe if done properly, could not only be an important step for Colorado but also a beacon of hope for all America.

Commission Recommendations and Action Steps

DATA & ASSESSMENT

*Develop a comprehensive, centralized, user-friendly, easily-accessible **data and assessment system** that identifies gaps and deficiencies*

1. Gather available data and centralize in a consistent understandable format
2. Use data to identify gaps and deficiencies
3. Apply data on best practices to address gaps and deficiencies by informing instruction
4. Provide data in an accessible way to parents and the community to further understanding of achievement gaps
5. Link K-12 data with Higher Education data to promote partnerships between the two systems

HIGH EXPECTATIONS

Develop awareness, high expectations, solid ownership, and effective action in local and state affairs

1. Develop expectations of success and no excuses
2. Address cultural sensitivity and the impacts of school and external biases on expectations
3. Establish and maintain academic rigor, which is essential to ensuring high expectations
4. Ensure that the school community, including staff, policymakers, businesses, and the community at large have high expectations for student achievement

HIGHER EDUCATION

Develop and infuse:

-Joint 16-Prek responsibilities

- Shared 16-Prek success indicators

- Shared rigorous and connected 16-Prek curriculum which begins with the end in mind [life preparation, college preparation, life success, etc.]

- A systemic, proactive support system that encourages and enables all students (especially under-represented groups) to access and succeed in college.

1. Establish a rigorous and connected 16-Prek curriculum which begins with the end in mind – "life preparation" is the default for all students
2. Provide continuous support that enables all students (especially under-represented groups) to access and succeed in college (provide early counseling, "can do" values, and clear financial options)
3. Create joint responsibilities between 16-Prek and college systems

4. Develop shared indicators for 16-Prek
5. Ensure that elementary and middle schools are part of the solution
6. Increase funding of the 16-Prek system to ensure better access and affordability to higher education

ADMINISTRATOR/TEACHER QUALIFICATIONS AND PROFESSIONAL DEVELOPMENT

- ***Develop administrator/ teacher cultural competencies***
- ***Embed cultural competencies in local and state leadership***
- ***Identify and mentor future leaders of color***
- *Achieve support of major education associations for the establishment of **teacher incentives** to work in challenged schools*

1. Develop administrator/teacher cultural competencies and sensitivity
2. Require that administrator/teacher preparation be data-driven
3. Increase minority teachers and administrators
4. Involve teachers in choice of professional development
5. Establish incentives for the most capable administrator/teacher to work in the most challenged/impacted schools

PARENT & COMMUNITY INVOLVEMENT

*Develop a local and state **constituent engagement strateg**y to make "closing the achievement gap"/ "success for all Colorado kids" the work of all Coloradans.*

1. Build connections with parents, guardians, family, business people, and non-traditional leaders which will require more culturally sensitive behavior. Identify and address "the challenge is for all" – "Greater Colorado Community"
2. Ensure that schools learn to have high expectations with an understanding about what each student brings
3. Articulate needs to understand that the conditions we have created affects students' abilities to learn

BEST PRACTICES

*Develop a **best practices strategy** with a leadership group, association ownership, online "warehouse," and a system of rewards/recognition.*

1. Fund, collect, store and share "what works"
2. Develop a system that rewards best practices by linking them to funding and incentives

Introduction

Colorado's six-year old effort to close the achievement gap remains a significant challenge. As measured by standardized test scores, high school graduation and drop out rates, and higher education participation rates, African American, Hispanic and Native American students in the state consistently experience achievement gaps. Students from low-income families score much lower than state averages as well. Percentages of proficient and advanced scores of the Colorado Student Assessment Program (CSAP) among African American, Hispanic and Native American students and students from low-income families are far below the state's white students in every tested subject across all grades.

For example, twice as many white middle and high school students score proficient or above than African American and Hispanic students on most reading, writing, and math tests. The differences are closer to three to four times on secondary math CSAP tests, and about twice as many white students score proficient or above Native American students on these tests. In real numbers, proficient and above CSAP test scores for whites are typically 30 percentage points above African American and Hispanic score, and 20-30 percent above Native American students.. The test score gaps tend to be even worse for students in Title I, the federal assistance program for students from low-income families.[1]

Graduation and dropout rate differences by race are also notable. Recent Colorado graduation rate figures from both the Colorado Department of Education (CDE) and the Colorado Children's Campaign (CCC) reveal gaps of more than 10 percent between white students and African American and Hispanic students. CDE numbers show an 18 percent graduation gap between white and Hispanic students, and a 21.7% graduation gap between white and Native American students..[2] The CCC found differences of more than 24 percent and 26 percent between white students and African American and Hispanic students respectively, with less than half of either minority group graduating. Drop out rates from both sources find similar gaps by race.[3] More white Colorado students also enroll in higher education than African American, Hispanic and Native American students.

The Colorado Closing the Achievement Gap Commission (Commission) aims to change these numbers by identifying ways public schools can ensure that all students succeed in school. The report describes six central approaches, supported by research and examples, that the state's education leaders recommend that local school districts consider when working to narrow the achievement gap. It will be essential for districts to confront structural and systemic change when choosing from among these approaches.

Schools that have made measurable progress in closing achievement gaps have deliberately made systemic changes in their basic strategies. These changes have included setting high expectations for all students, regardless of a student's race or family income, social behavior, or daily practices, such as attendance and tardiness. In establishing and implementing these higher expectations, school leaders have explicitly confronted inherent racial and socio-economic biases

of staff, students, and the educational system. Another common structural shift in schools that have effectively closed achievement gaps is to intentionally seek to increase resources from a variety of sources, including active pursuit of grant funding.

At the end of the 1990s, local school district and community leaders in Colorado joined forces with policymakers and administrators at the state level to embark on a concerted effort to ensure school success for minority and poorer students by founding the Closing the Achievement Gap Coalition (CTAG Coalition). This group tried to create non-traditional alliances in support of education, and included local school board members, superintendents, business leaders, Colorado Department of Education (CDE) staff, the Commissioner of Education, and several members of the State Board of Education.   By 2000, Governor Bill Owens and Attorney General Ken Salazar became co-chairs of the CTAG coalition, adding to the effort's credibility and bipartisanship.

State education accountability requirements, such as the CSAP and state model content standards, adopted and implemented just prior to this time, provided a spotlight for this work through their specific measurements of educational performance. Subsequent state accountability laws, including school ratings of the School Accountability Report (SAR) and the accreditation law, increased the momentum for the CTAG Coalition's efforts. The accreditation law, makes closing the achievement gap a factor in school districts' accreditation. The federal 2002 No Child Left Behind law sharpened this focus by requiring state test scores to be disaggregated by race and income to reveal any gaps, and requiring consequences for failure to meet minimum test scores for racial and income subgroups.

The importance of educational success of all students in Colorado has not only been highlighted by recent state and federal accountability laws, but also by an environment that allows for public school choice via charter schools and open inter-district enrollment. In addition, the 2003 decision by the Colorado Commission on Higher Education to set college admission standards expanded the scope of the CTAG work to ensure that students from diverse backgrounds succeed beyond high school.

Although the Governor's goal to fund the CTAG efforts in 2002 with $6 million could not be achieved because of the ensuing economic downturn, the CTAG Coalition identified and prioritized specific key components to close the achievement gaps. This work was further strengthened by the legislature's enactment of a law in 2003 requiring CDE to assist "unsatisfactory" schools or schools identified with an achievement gap. This law (SB 03-254) also created a CTAG Commission - and charged it with clarifying successful strategies to close gaps.

The Commission and CTAG Coalition identified six common strategies to close achievement gaps. They include: use of data and assessment to inform instruction, parent and community involvement, best practices, professional development, preparing students for success in higher education, and establishing and maintaining high expectations. This interim report discusses these strategies and offers guidance to schools, school districts, state agency staff, and lawmakers to make substantial progress in closing achievement gaps. The strategies can be incorporated in a variety of ways depending on each school's particular need and circumstance.

SECTION 1 – DATA AND ASSESSMENT

Value and Need for Data

The basis to close a school district or school's achievement gap is understanding its data. Key information includes assessment results, graduation and dropout rates, higher education participation and success rates, high-quality teacher placements, and other factors that may help or inhibit academic success or access. Schools and districts must have a clear understanding of their demographic breakdowns, which sometimes will offer perspectives into previously unnoticed gaps.

Disaggregation of data by race, family income, English language proficiency level, and other areas is central to identification of gaps. Research confirms this notion, which has also permeated the discussions of the Colorado Closing the Achievement Gap (CTAG) Commission. In Colorado, federal and state accountability measures based on clear standards and assessments furthers district and schools' capacities to use data to help close achievement gaps.

As mentioned earlier, the federal No Child Left Behind (NCLB) act requires disaggregation by race, gender, English Language Learners, and special education in order to prove academic proficiency by all of these subgroups. Title I, the federal education assistance program to states and an enforcement mechanism for NCLB, states in its statutory language that achievement for all students can be accomplished by, "closing the achievement gap between high- and low performing children, especially the achievement gaps between minority and non-minority students, and between disadvantaged children and their more advantaged peers."[4] Furthermore, Colorado's own accreditation indicator of Closing the Achievement Gap requires that school districts have "established goals for closing learning gaps and advancing high achieving groups as measured by disaggregated student performance data."[5]

The effective use of data is a powerful way to inform instruction and impact the classroom, especially longitudinal data. The state's new law requiring longitudinal student and school assessment data may help with this analysis.[6] A November 2003 article of *School Superintendent's Insider* reports recommended that districts disaggregate data for schools and the district and then set district goals for the rate of the reduction of the achievement gap, such as a 5 percent per year improvement goal for African American and Hispanic students who continue in a school or district.[7]

In addition to Colorado's achievement gap data discussed in this report's introduction, results from the National Assessment of Educational Progress (NAEP) reveal continuing test score gaps among 4th and 8th grade African-American, Hispanic, and poor students in the state. NAEP is a standard assessment given to a random sample of students in all states. Results from the 2003 test show proficiency gaps in Colorado of 25-30 percent or more between White students and African American and Hispanic students for 4th and 8th grade reading and math tests. Similar gaps are found for students eligible for free and reduced lunch and those who are not eligible. Other states are experiencing similar gaps on the NAEP.[8]

This section on data and assessment will cover:

- What data is necessary to examine;
- Potential uses of the data;
- The need for schools and districts to analyze data early; and
- Examples of schools and districts that have used data to successfully closed gaps.

What data

The recent National Association of State Boards of Education (NASBE) draft report asks states many questions about their capacity to close achievement gaps, including: "Does the state provide an infrastructure that provides districts and schools with reliable, transparent, and timely data?"[9] It is important to ask the same question at the local levels as well to determine what school districts are doing to provide data to teachers, staff and parents. As described in this section, some Colorado districts successfully use data to make successful achievement gap improvements, but this has not happened systemically statewide. An August 2004 newspaper article reported that several districts in the state have yet to disaggregate their CSAP data for their poorest students.[10]

Assessment

CSAP
Key to data analysis are quality assessments. In this state, the annual Colorado Student Assessment Program (CSAP) is the main source for this information. Other, more frequently administered, school-level assessments can be very helpful in supplementing CSAP. Basic student-level CSAP results can be rounded out by examining CSAP data by school as configured on the School Accountability Reports (SAR), along with any data revealed longitudinally. Understanding disaggregated CSAP results by race, family income, English language proficiency, and special education is necessary to perceive and illuminate an achievement gap. Other types of gaps may be revealed, including those created by gender issues or other family, neighborhood, or student characteristics.

School- or District-Level Tests
School or district-wide assessments, such as Northwest Evaluation Association, Terranova, or Iowa Test of Basic Skills, can be helpful in understanding and acting on achievement gaps because the results can be viewed and analyzed more quickly. This faster turnaround time enables teachers and other school leaders to adjust their instruction to individual students or classrooms in a more timely way to improve learning. These assessments can also help alert parents or others to deficiencies at a time when it is still possible to intervene. It takes the state more than four months to have CSAP data available, which is long after the school year has ended. In addition, district or building level tests can assess students on specific standards of the district, which has the authority to set standards that exceed state model content standards.

Non-Assessment data

The NASBE report calls on states to establish a reliable data infrastructure and require districts and schools to assess disparities in a variety of arenas. These include suspensions, expulsions, dropouts, special education placements, advanced placement courses, gifted programs, and transportation barriers. The report notes that North Carolina's achievement gap advisory

commission did this, finding that over a three-month period, a majority of suspended students were African-American or multi-racial, even though that population comprised only a third of the public school population.[11] The most recent edition of *Education Next* points out that socioeconomic status, family structure and neighborhood characteristics are achievement gap factors, but that a substantial gap remains even after controlling for these influences.[12] This report will examine these other factors.

Uses of the Data

In closing achievement gaps, districts and schools use data to inform instruction and curriculum, make staff recruitment and hiring decisions, and consider proven best practices. The 2004 NASBE report on closing the achievement gap asks states, "Does the state build district and school capacity to use reliable information and data to drive targeted improvement?"[13] For example, when data show low writing scores for minority or poor students, districts and schools can make informed curricular decisions to improve the scores and close gaps. Research supports the success of such intentional uses of data.

Some studies say that assessments and accountability systems must provide honest information and signal needed improvements. Some show that a state's assessment and accountability systems help inform practice to meet improvement targets, so that a writing assessment may lead to more classroom writing assignments.[14]

Addressing Gaps Early

Nationally, research shows that achievement gaps begin early, suggesting that local education decision-makers look at data by Kindergarten or before. Evidence of early gaps also supports the benefits of quality early childhood education programs, which is confirmed by other research (see pages 31). A recent West Ed article, "Falling Behind," says the achievement gap between white and African-American children exists by Kindergarten and "has tended to widen over time." The authors note that Hispanic children also start with early gaps, partly because of English language inexperience, but that they narrow the gap over time.[15] The NASBE report notes that reading development research emphasizes that "without intervening systematically and monitoring the effectiveness of instruction, the gap will widen considerably over time" for a child who enters school a year below in reading skills. Waiting requires intensive intervention later, which can be more costly.[16]

Examples

Cherry Creek

The Cherry Creek School District has found value in using interim assessment data to inform, adjust, and differentiate instruction for students. The district considered research-based approaches by ensuring that its efforts were aligned with school and district accountability goals and by starting interventions early. The district evaluated all existing efforts to reduce the achievement gap and improve student achievement, including preschool, academic intervention in reading and math, summer school, and after school programs.[17] The district found that only 69 percent of 1st graders were reading at grade level. After the district set improvement goals, monitored students' progress frequently, and assessed the effectiveness of its intervention

strategies, within two years 82 percent of its 1st graders were reading at grade level. According to the NASBE report, early interventions of this nature helped the district avoid a greater likelihood of referrals to special education or remediation by 3rd or 4th grade.[18]

Cherry Creek also targeted geographic and socioeconomic need in its efforts to close the gap. Several years ago, the district became increasingly aware of demographic and mobility trends in the north part of the district. District officials reviewed statistical information about the "North Area" schools, and identified substantial CSAP achievement gaps between African American and Hispanic students compared with white and Asian students, as well as English Language Learner (ELL) students compared with non-ELL students. This school-specific and geographic-specific disaggregation of data within a school district enabled Cherry Creek to identify and focus upon emerging achievement problems.[19]

Other Examples

- The Fountain/Fort Carson School District partly attributes its success at closing achievement gaps to district its efforts to use data, such as pre- and post-tests and continuous monitoring to help focus on results.[20]
- Weld County District 6 monitored performance data monthly and quarterly, and teachers conducted multiple interventions in reading, math, and writing, particularly in the preschool years. Ultimately, the district was able to reduce performance disparities between students from low-income and high-income families, and essentially closed 3rd grade reading gaps among Hispanic and White students in six Greeley elementary schools.[21]
- The Norfolk, Virginia public schools, with a two-thirds African American student population and high rates of poverty, began its effort of strong standards, a multi-tiered and data-driven accountability system, and focus on instruction and assessment in the late 1990s. Since then, it has cut the achievement gap in many areas by 50 percent or more, and by 75 percent in high school English and Algebra II.[22]

SECTION 2 – HIGH EXPECTATIONS

Cultural shift

Schools that have closed achievement gaps have clearly established the importance of high expectations for all students, which is inherent to all of the approaches that they take. Central to this notion is that successfully closing achievement gaps requires academic improvements among under-performing groups of students, but not at the expense of higher performing ones.

There are great challenges to achievement for students from families of lesser incomes, many of whom are African American, Hispanic and Native American. Resource limitations in poor school districts and uneven distribution of high-quality teachers in low-performing schools are some examples. A 2004 report by the Colorado Department of Education (CDE) cited research that found that African American and Hispanic and mixed-race students reported lower skill, knowledge, comprehension of school reading and teachers' lessons, and lower rates of homework completion.[23]

Facing these realities with the intention of raising achievement of under-performing students is the first step of developing high expectations. A 2003 Education Commission of the States (ECS) report suggests schools must find reasons to expect each student to succeed.[24] As mentioned in its "Road Map," the Colorado CTAG Commission calls for schools to recognize socioeconomic and cultural variables that can help or hinder students in reaching high standards, access, and opportunity.[25]

This section will address specific strategies to implement high expectations, including good school leadership, strong public school standards and accountability, rigorous curricula, increasing the enrollment of minority and poor students in challenging classes, and effective attendance and discipline procedures.

Leadership

Leadership by superintendents at a district level, principals and teachers at the school level, and other staff and administrators is critical to the effort to establish and maintain high expectations. These administrators and instructors have to both identify the problems and have good relationships with other faculty to implement solutions. Education specialists point to the importance of principal leadership that is passionate and competent in fulfilling the district mission and reaching achievement goals. Teachers have opportunities to demonstrate leadership in the classroom on a daily basis.

Achievement gap reduction efforts by both the Cherry Creek and Fountain/Fort Carson School Districts included leadership success. In Fountain/Fort Carson, which closed achievement gaps by improving test scores, graduation rates, and attendance rates, the district raised expectations for administrators. This effort entailed "principal academies" that included training, assessment, and monitoring of principals. The district also emphasized an instructional leadership role of principals, in addition to their management role. Cherry Creek's North Area achievement program required the addition of an executive director to ensure success.[26]

Standards and Accountability

In addition to strong leadership at the building or district level, academic improvement requires a strong accountability system that sets a universal standard, and establishes measures and incentives at the school district level.[27] A strong standards-based state system sends a message that all students, including minority students and students from low-income families, are expected to achieve, and that the school community will support high standards.[28] The CDE report highlights research on the effectiveness of holding both schools and students accountable, and the development and implementation of accountability standards to ensure high performance of all teachers and administrators.[29]

Colorado has a standards-based system that includes strong model content standards. As mentioned earlier, one indicator of the state's accreditation of school districts is the closing the achievement gap effort. Another state law, enacted in 2003, outlines process for identifying strategies to close the achievement gap and for providing state assistance to schools with achievement gaps.[30] Federal measurements under NCLB that required disaggregated data of minority and low-income subgroups adds state, district, and school incentives for positive results in the state's assessment.

Curriculum

In Colorado's locally controlled system of instruction, it is up to school districts to decide and target curricula. Research points to the lack of a rigorous curriculum as one factor that leads to achievement gaps, which some researchers say is due to minority students tending to take less rigorous courses, often resulting from low academic expectations for minority students.[31]

A 2001 Education Trust report maintains that all students must have a challenging curriculum aligned with standards, and notes "the quality and intensity of high school coursework is a key predictor of college success." Discussing the achievement gap implications, the report found that a strong high school curriculum can shrink the college completion gap in half and that students who take more rigorous coursework learn more and perform better on tests. The NASBE report discusses the body of research that found that a rigorous viable curricula, advanced course work, and quality assignments helps ensure equal opportunity to learn.[32]

A 2000 study said that an effective practice to close gaps is to identify every student's potential through individualized assessments, appropriate placements, and ongoing encouragement from staff. The study, as cited in the 2004 CDE report, argued that successful schools maintain a safe and orderly environment where staff demonstrate respect for each other and are free of fear; and publicize and fairly enforce a code of conduct.[33] In helping students succeed at more challenging coursework in a strong standards-based environment, some schools are looking at increasing student learning time (see page 32).

Implementing High Expectations

In order to apply rigorous curricula to closing achievement gap efforts, it is essential that minority and poor students have opportunities to take challenging classes in a climate in which school leaders expect them to go to college. Examples of challenging classes include AP classes, honors courses, and AVID programs that offer college preparatory instruction.

A recent report suggests that schools provide preparation for college entry exams (such as the PSAT, SAT, or ACT), encourage all students to take these tests, and also pay for these tests if finances are a factor for family. A 1999 study found that students who had been low performing had higher test scores after taking college preparation coursework.[34] To address the other end of the spectrum, studies call on schools to eliminate placement of minority and poor students into low-level, remedial classes.[35]

Grouping

One way to accomplish this strategy is to institute grouping policies where students learn with other students of varying ability or age, which provides lower performing students with fewer options to opt out of a rigorous curriculum.[36] Some research suggests the effectiveness of equitable grouping of students that place students of color, in proportion to their numbers, in high ability classes in the early grades and in higher tracks and college preparation in later grades.[37] NASBE's report recommends that states promote, encourage, and fund instructional approaches that expose minority students currently performing at or near grade level to advanced content, challenging strategies, and quality work, to increase numbers of minority students performing at the highest levels on standardized tests.[38]

Attendance/Discipline

Some researchers point to the need for schools to help students to develop discipline by requiring better attendance and behavior. The 2004 CDE report cites recent research that found low student attendance leads to an achievement gap. The report also recommends that local education policies work to bridge home and school cultures by adapting teaching and discipline practices to suit students' backgrounds.[39]

The Fountain/Fort Carson School District focused on minority attendance rates and has seen positive results in that area.[40] The principal of East High School in Denver is working with an attendance review board that meets every Monday, composed of nurse, a counselor, and the principal, to look at student absences over the preceding 15 days.[41]

Examples

Cherry Creek

In setting high expectations through high standards and challenging curricula, the Cherry Creek School District focused on ensuring that minority students are equitably represented in academically accelerated programs. If minority representation within these programs were not equitable, schools in the district considered how to increase minority enrollment. Specifically the district worked to increase the percentage of students taking AP classes by at least 10 percent, with emphasis on increasing underrepresented population, especially in schools with a high racial achievement gap. In supporting the success of its North Area achievement program, the district raised academic achievement expectations by expanding AP, AVID, and improving the math curricula at the feeder high school and middle school. The district also initiated a high school institute for science, math and technology, a resource and tutorial center, and honors programs in the middle school. In addition, the district established a goal and expectation to increase identification of gifted and talented minority students and reduce identification of special education for the same population.[42]

Fountain/Fort Carson

In the past several years, the Fountain/Fort Carson School District showed compellingly positive results from its efforts to close the achievement gap. In particular, the district has had much higher minority graduation and attendance rates, minority achievement that is among the highest in the state, and multiple valedictorians that included Hispanic, African-American, and White students. District leaders focused on results by improving academic achievement, including providing the skills and education graduates need to have to succeed when they leave the district. Specifically, the district aligned its standards to state standards, instituted core academic subjects, 25 college courses, and strengthened graduation requirements.[43]

Sierra Grande

The Sierra Grande school district in Southern Colorado, with fewer than 100 students, most of whom are Hispanic and from low-income families, has recently experienced significant positive student performance improvements at all grade levels. These improvements include better academic/assessment performance, scholastic-related educational activities, fewer suspensions, and better arts and athletic performance. Sierra Grande schools, which use a "core knowledge" curricula, also made advancements on the SAR, achieved AYP, and received the 2002 Governor's Distinguished Improvement Award for all three schools.   The district attributed these results to quality teachers' positive attitude and willingness to adapt to high expectations, principal-led instruction and teacher development, research-based curricula and instruction, professional development and resources, involvement of parents and community, and supplemental funding.[44]

Weld District 6

A remarkable achievement turnaround occurred in Jefferson Elementary School, a mostly poor, Hispanic, and English Language Learner (ELL) school in Weld District 6. After being ranked "unsatisfactory" two years ago, the school systemically implemented high expectations through a core reading program, a team leadership training program, parent liaison, and an additional 20 days of student contact time. Gains of 15-30 percent proficient and advanced on the CSAP were revealed in one year among in reading, writing, and math.[45]

SECTION 3 - HIGHER EDUCATION – PREPARATION FOR SUCCESS

Background

Access to and success in higher education is vital, because it is the level of education that fundamentally changes the cycle of poverty, which in turn systemically helps prevent future gaps. The higher education achievement gap, however, is significant. Fewer African American and Latino students go on to college than White high school graduates and obtain college degrees at half the rate of white students.[46] Less than half (47 percent) of high school graduates from low-income families immediately enroll in college or trade school, compared to 82 percent of students from high-income families.[47] Affluent students are nearly 7 times as likely as students from poor families to earn a bachelor's degree.[48]

As long as fewer poor and minority students go to college, affordability will continue to limit their access because higher education credentials lead to more livable incomes. In considering these factors, the Colorado CTAG Commission goal, as stated in its "Road Map," is to increase the percentage of poor and minority students who move on to higher education and also to increase the rate of college graduation for those who do enter college. Actions to reach this goal include supporting poor and minority students, development of academic articulation, and reducing the number of students in remedial classes.[49]

Articulation between K-12 Education and Higher Education

Several points of connection related to the achievement gaps exist between the K-12 and higher education systems. On one hand, higher education officials have expressed concern about college freshmen who need remediation, and conversely school districts have found a lack of prepared teachers who emerge from teacher preparation programs provided by colleges of education. Both issues have illuminated opportunities for coordination between the two systems that can lead to increased focus on closing achievement gaps. In addition, schools need to begin working with children and their families as early as middle school to make higher education a goal. More importantly, parents and children need help to understand that college is within their reach, financially and academically.

Low achievement among college freshmen spurred Colorado higher education policymakers to become actively involved in public K-12 issues. This involvement has profound implications for the achievement gap. In the last several years, higher education officials increased public awareness of resources spent by community colleges and universities to remediate freshmen that lack skills and knowledge to succeed in college. The information led initially to proposed state legislation to hold K-12 schools financially responsible for such remediation. Eventually, the Colorado Commission on Higher Education (CCHE) in October 2003 adopted a set of higher education admission standards for public universities in the state.

The new admission standards have sharpened state K-12 focus and school district education policies on curricula and local high school graduation requirements. They have also led to more regular discussions between CCHE officials and the State Board of Education to examine articulation, and connecting policies and standards between the two systems. Some of these most relevant policies are requirements for teacher and principal preparation programs, which

are delivered by college education programs. With a strong concern that new teachers are well-prepared, the state strengthened its K-12 teacher preparation program licensure standards.

Increased spotlight on high school classes and graduation, along with higher education-K-12 system coordination, may be raising awareness of graduation and dropout gaps, and commensurate higher education gaps among poor and minority students. It is imperative to look at some approaches that may improve the access and success disparities in higher education.

K-12-Higher Education Partnerships

Institutional partnerships between public schools of all grade levels, and universities or community colleges, can encourage access to higher education, and close the gap for minority and poor youth. Partnership programs can include mentoring, tutoring, and community engagement.

Mentoring and Tutoring

Around the country, high schools, community colleges, and universities have established programs where college students serve as mentors for at-risk high school students to share their own high school experiences, discuss positive aspects of higher education, serve as role models, or listen to at-risk students express ambitions and future hopes.[50] The Cherry Creek School District has developed a program with the Colorado School of Mines that targets students interested in math and science but need extra academic support to achieve the goal of access and success.[51]

Community Engagement

In Los Angeles, the L.A. Unified School District, the Foshay Learning Center, and the Manual Arts High School formed a college preparation partnership program with the University of Southern California (USC) that connects student success with issues in students' neighborhoods. It offers educational and social services programs to low-income, at-risk, and minority students and their families before and after school. Those students that meet USC's admission criteria receive a 4 and ½ year tuition scholarship.[52]

Counselors

Guidance counselors play an influential role in whether students in middle and high schools prepare for or even consider higher education. Research has found that when guidance counselors do not make a concerted effort to steer students toward more rigorous curricula, the students choose the vocational or general track course rather than college-bound curricula. Studies recommend that schools focus guidance and counseling on minority and poor students and their families who are not familiar with preparation for further education. Specifically, school guidance departments should help students with college application forms, opportunities for financial aid (along with their parents), institute mentoring and tutoring programs, problem solving exercises, and test preparation, and provide individual and group counseling, motivational speakers, college visits, and summer enrichment programs to help students prepare for college.[53]   Students and their families need to understand that higher education is a goal within their reach.

Beginning in the 2004-05 school year, "High Horizons," a pilot counseling project of Governor Owens' Fund for Colorado's Future, will complement school counseling efforts with an intent to support students' academic and career futures. The project's goals include stronger higher education guidance for students, professional development for school counselors, and family involvement to promote lifelong learning.[54]

College Preparation Courses and Career Academies

When schools offer students courses designed to prepare students for college work or future employment, college participation can be increased. For successful college preparation programs, some research has found that incorporation of cultural and language background is an effective component. A segregated private New York City program includes a focus on community connection, collective survival, and racial uplift so African American students feel like part of the majority culture without being expected to discard their own.[55] The Fountain/Fort Carson School District has offered college classes to high school students, which has saved tuition up to $35-45,000 for parents.[56] As mentioned on page 17, schools can also help students prepare for college entry exams and pay for these preparation classes if their family needs financial assistance.

A Manpower Demonstration Research Corporation (MDRC) comparison study found that an integrated academic and vocational curriculum helped students prepare more for college because students choose a concentration area, become more interested and involved in their education, and see link between education and their future.[57]

SECTION 4 – ADMINISTRATOR/TEACHER QUALITY AND PROFESSIONAL DEVELOPMENT

Research: Administrator/Teacher Quality is Critical

Quality teaching is critical to student learning and a significant factor in closing the achievement gaps.[58] Adult direction and encouragement to minority students by teachers and other education leaders, such as principals and superintendents, make a big difference in student achievement. A key ingredient to administrator/teacher quality is professional development, which includes ongoing administrator/teacher education and experiences, and should include compensation incentives.

For example, professional development programs in Pittsburgh with expert teacher coaches, along with a strong math curriculum resulted in positive assessment results for nearly 75 percent of both White and African American students. Less than half White or African American students taught by teachers with weak professional development met the assessment standards. Similarly, researchers found that schools in Cincinnati using a team approach to professional development improved test scores within a year.[59]

The 2004 CDE report discusses recent research that links teacher preparation, quality, and experience to closing student ethnicity and parent income achievement gaps, including specific approaches. In particular, effective strategies require teacher content knowledge, pedagogical skill, and relational skill, and professional development that promotes effective, routine teacher encouragement in the classroom.[60] No Child Left Behind requires that all public school teachers be "highly-qualified" by next school year and Colorado has recently updated its teacher licensure and preparation rules to align with the federal act. A key emphasis of these rules is teacher performance-based demonstration of competencies in the classroom.

This section will examine the need for districts and schools to provide teacher professional development opportunities, particularly strategies related to closing the achievement gaps. Staff training that promotes increased teacher and principal awareness of standards and well-articulated achievement targets will reinforce a district's intent to close achievement gaps, which can lead to success. Some compelling professional development strategies include those that involve learning about diverse and needy students, focus on high quality teachers in low-performing classrooms, and concentrate on teacher training on successful individualized learning.

Necessity of Professional Development

It is imperative that schools increase time for teachers to have professional development opportunities. Teachers can serve students better if they have time to learn new techniques, plan lessons, review student assessments, discuss instructional approaches, and develop interventions for struggling students. A recent report from California noted that it is especially important for teachers to have more time to collaborate outside the classroom. The realities of a standards-based educational system is that it is difficult to balance professional development with

instructional time, but the California study says that research does not support pedagogical benefits of cutting professional development time in order to provide more instructional time.[61]

In Colorado, the Weld County District 6 School District targeted increased teacher training hours last year to high need areas, such as ESL training, literacy, and math, and incorporated salary and stipend incentives. Teachers were required to show how they used the strategies in their classroom and their effects on student achievement. Cherry Creek School District effort to close gaps in its North Area included the initiation of professional learning communities and facilitated participation by offering child care for staff during their professional development. The Denver Public Schools Superintendent stated his intent to send all district teachers to summer professional development courses that would sharpen and inspire them. Sierra Grande has focused on developing teachers who are open to new and innovative research-based teaching strategies and who are responsive to coaching, mentoring, and training from experts. The district also offers teachers with financial performance incentives. Fountain Fort/Carson professional development strategies tie teacher learning to pay and allow early teacher release and late start once per month for staff development.[62]

The previous section discussed K-12 and higher education coordination. The area of teacher preparation programs offers another opportunity for collaboration between the two systems. The NASBE report mentions that the North Carolina CTAG advisory commission recommends that state education leaders work with university leaders to ensure teacher education faculty have knowledge and skills to teach pre-service teachers to work successfully with diverse student populations.[63] A key goal for Colorado teacher training programs must be to produce teachers trained to focus on closing Colorado's achievement gaps.

Race, Poverty, and Cultural Competencies in Teacher Training

Teachers must be uniformly trained on effective teaching practices, and also on culturally sensitive pedagogy. It is important to ensure cultural training and development for all staff members to address the premise held by some that African American, Hispanic and Native American students are incapable of meeting high expectations. More generally, but related to this issue is a question in the NASBE report: Has the state developed professional development that provides teachers with capacities "to intervene quickly when students are not progressing sufficiently?"[64]   The effort to close the achievement gap must consider the effect of culture, bias and stereotyping on teachers, staff, students and parents.

Addressing Biases and their Effects

Research supports professional development programs – both pre-service and in-service - that provide open discussions about cultural belief systems and about unequal treatment of minority and poor students in the classroom. A 2001 study noted that teacher education programs usually focus on research that links student failure with socioeconomic status, cultural differences, or single parent households. Helping teachers recognize that these beliefs can damage student success can also help them understand how these issues can shut opportunities for students, and how they can be reopened. To help teachers address racial and cultural issues in a context of high expectations, the study suggests the following be incorporated into their professional development:

- Recognition of one's own biases and stereotypes;
- Treatment of each student as an individual and with respect;
- Sensitivity to terminology by asking students what term(s) they prefer;
- Increased knowledge about the history and culture of students in class and school;
- Don't protect a certain group of students with lax grading; and
- Don't let disparaging comments go unnoticed.[65]

The Cherry Creek School District staff training identifies educational issues related to race in the school, including greater awareness of how to improve instruction, guidance, and learning opportunities. Cherry Creek schools with a high racial achievement gap create plans for staff development that teach staff to help struggling students meet content standards.[66]

Increasing Minority Teachers

To increase minority participation in higher education, some researchers recommend that schools focus on increasing the number of minority teachers, principals, and administrators employed in all levels of education An Urban Institute study found minority students taught by minority teachers scored, on average, seven to eight points higher, and the effect was greatest for Hispanic students. This strategy can provide minority students with role models who understand their culture and with whom they identify. Yet, while 40 percent of students in the U.S. are minority, only 16 percent of teachers are minority. In Denver Public Schools, with more than 80 percent of its students being minority compared to 24 percent of its teachers, the district has convened a minority recruiting task force to boost DPS minority teacher numbers.[67]

School systems can recruit and train teachers with skills, attitudes, and backgrounds necessary to work with low-performing, low-income, and minority students and can hold them to high expectations. Such professionals also serve as examples of how education can and does lead to success.[68]

English Language Acquisition (ELA)

A significant component of professional development aimed at improving minority student achievement is ensuring that teachers understand language challenges to learning. Cherry Creek training for instructional staff in its North Area, for example, is developing programs to train staff on teaching ELA skills, including an ELA support coach.[69]

Quality Teachers with Needy Students

Many people working to close achievement gaps are concerned that disproportionately fewer well-prepared and experienced teachers work with academically needy students or in low-performing schools.[70] Nationally, students in high-poverty schools are more likely to be taught by less educated and lower scoring teachers, and students in predominately minority schools are about twice as likely nationally to be taught by inexperienced teachers.[71] In Colorado, only a third of teachers in the state's high-poverty public schools had a college major or minor in their subject areas in 2000. The *Rocky Mountain News* reported in August 2004, that "officials from districts across the state acknowledge that they struggle to make sure administrator/teacher quality is high at every school."[72]

In its 2004 report, NASBE asks states if their policies include plans for recruiting teachers for hard-to-staff schools and assistance to districts to attract qualified candidates, including incentives.[73] Various research, including a recent WestEd article, recommends that schools or districts offer teachers salary and other incentives, such as increased collaboration time and periodic sabbaticals to take on challenging assignments.[74]

Individualized Instruction

Another ongoing professional development approach that experts recommend is more regular opportunities for educators and students to have one-on-one interaction. This approach facilitates a climate of caring, support, and motivation.[75] In a recent presentation, author Belinda Williams said that teachers need to understand how to build relationships and talk with students.[76] The NASBE report notes that teachers must learn that individual students learn differently, especially in diverse student populations. The report recommends that, while standards are always the same, differentiated instruction is important to closing achievement gaps.[77] Preparing educators for individualized attention and instruction is enhanced when schools give students time and structure for individualized learning (see pages 32-33).

SECTION 5 - PARENT AND COMMUNITY INVOLVEMENT

Benefits of Parental Involvement

An extensive body of research confirms that parent involvement in a student's education improves academic outcomes, and in particular helps close achievement gaps. Specific factors include parent availability to his or her child, parent support of school efforts, parental beliefs and expectations, parent-teacher communication, and how schools reach out to inform and encourage parental efforts.[78]

Several parent involvement challenges persist, however, including lack of knowledge, English language skills, confidence, and time. Interacting in a different culture can reduce a parent's confidence level, especially if they do not understand how the school system works and whom they should contact. Some parents contend that they are not invited to participate nor made to feel welcome in the school. Researchers have found that among some Hispanic parents, family involvement in school is seen as interference. Speculation exists that poorly educated parents assume they have nothing to contribute to their child's education, teachers are experts, and parents need to stay out of the way. In many Latin American countries it is considered unacceptable for parents to become involved in school matters.[79] When parents of minority or poor students do not understand the competitive college admission process, they do not encourage their children toward more academic classes. Because of these obstacles, some argue for schools to take the lead and extend invitations to families.[80]

This section will examine school and district efforts to involve parents more in their child's education. It will also cover community and business involvement with education, which has shown to be helpful at reducing achievement gaps.

Outreach to Parents

Many studies have outlined school outreach strategies to engage parents in their children's education. Examples of these strategies are listed below.

- Initiate a public information campaign to get parent and local community attention, especially among parents of consistently underachieving students;
- Require schools to have annual action plans to connect with parents, with documentation of parental participation;[81]
- Encourage school entities, such as accountability committees, to host parent engagement workshops.[82]
- Offer parent information nights presented in languages represented by the student body and/or translate important information for parents;[83]
- Encourage family members to participate on advisory boards;
- Have counselors visit student homes (with parental approval) to meet with families on familiar ground;[84]
- Hold joint PTO/PTA and district or school accountability meetings;

- Offer child care during meetings;[85]
- Offer students extra credit if their parents attend back to school night or other parent involvement functions;[86] and
- Establish programs that engage parents' assistance with their child's college applications, financial aid eligibility and other higher education partnerships (see higher education section on pages 19-21).

Community Involvement

The CDE report highlighted 2003 research that attributed one of the causes of achievement gaps to the extent to which the community and its essential institutions support or hinder the efforts of families and school. For highly mobile students, which some studies contend can be more prevalent among students from low-income families, community support is diluted because the student has less time and investment in the community.[87] With the intention of closing achievement gaps, several school districts in Colorado have initiated efforts to increase community and school connections.

Cherry Creek

The Cherry Creek North Area Task Force identified increased communication and community outreach as one of its areas of need in order to begin to close achievement gaps. It subsequently held 19 achievement forums with 120 parents and community members, along with hundreds of teachers, staff, and students. Also, an achievement task force met monthly for two school years (2001-02 and 2002-03) with 40 parents, staff, community, and students. The task force cites these asset-building activities as a successful strategy in narrowing achievement gaps.[88]

Lake County

The Lake County School District reported that it has continued its community involvement, particularly with the Hispanic population, including student asset training, that has involved the Statewide Parent Coalition, the community's Diversity Action Team, and with CDE's Migrant Program. The district also convened a community summit with involvement from its Hispanic population. The district's results were significant gains in the district's "Explore and Plan Test" in English, math, reading, and science reasoning for Hispanic students between 2000 and 2002, as well as increased parent involvement and student engagement and relationships with school.[89]

Fountain/Fort Carson

Several years ago, after recognizing low minority student achievement (the lowest achievement in the region), low graduation rates, and low attendance rates, the Fountain/Fort Carson district held a series of community meetings with improving academic achievement as the top priority. The district focused on students from both higher-income and low-income families. Ultimately, the district achieved community and parent input and support for requiring core academic subjects and strengthening high school graduation requirements.[90]

Other

The successful Los Angeles Unified School District partnership with the University of Southern California (see page 20) links student and families with community and civic engagement issues. Other student-community/civic involvement opportunities that schools can promote and encourage include student government, participation in school-sponsored local candidate or elected official forums, and volunteer work with community action groups.

Business Involvement

The business community is a natural partner in our efforts to close the achievement gap. Its role and impact is critical because businesses are future employers of today's students and school success has direct consequences for families' choosing to live and work in the area. Some businesses also have financial and informational resources that can support minority and poor students. A recent report points out that when schools invite respected local minority businesspeople into the school, it shows minority students that they too can be successful.[91] Hands-on experiences with employers, such as internships, apprenticeships and business mentoring, can also help students understand and appreciate the connection between completing a quality education and a successful future.

The Colorado Closing the Achievement Gap Coalition has developed strong relationships with business leaders throughout the state, including in Denver, Colorado Springs, Pueblo, and Greeley. Coalition members have involved leaders of metro Chambers of Commerce, as well as Hispanic and African American Chambers of Commerce.

A 2002 study suggests that students are more likely to graduate if they are enrolled in a career academy, a school within a school in which students stay with the same group of teachers for three to four years. The career academy offers integrated academic and vocational opportunities, and builds relationships with local employers for work-based learning. Students choose an area to concentrate and become more interested and involved in their education and, as mentioned on page 21, succeed because they recognize the link between education and their future. The study looked at nine academies and found that programs improved school attendance, increased graduation rates, and decreased dropout rates by a third. In comparison with non-career academy students, the study also revealed that students are more likely to complete courses and apply to college.[92]

SECTION 6 - BEST PRACTICES

In outlining ways to build a state system to close the achievement gap, the 2004 NASBE report asks, "Does the state have policies and intervention systems in place to promote the use of research-proven strategies and monitor their implementation and impact?[93] A study from several years ago argued that a state and district role in closing achievement gaps is to "disseminate to individual schools existing research-based instructional programs with demonstrated success and effective instructional strategies and practices in diverse classrooms."[94]

The Colorado Department of Education (CDE) and state and local education policymakers and practitioners have planned and conducted many approaches discussed in this report. The Colorado closing the achievement gap statute (C.R.S. 22-7-611 to 613) was enacted in 2003 to establish a statewide program in CDE to systematize that assistance. That law requires the CDE program to provide eligible schools with "an outline of different strategies the school may implement to improve academic achievement." Intervention strategies suggested by this law are included in this commission report.

The law defines an eligible school as a public school that has received an "unsatisfactory" rating on the SAR or that has been "identified by rule of the State Board (of Education) as having a significant achievement gap." As of this writing, the State Board of Education has not approved these rules.[95]

Research-Based Best Practices

The previous five sections have covered strategies that require a broad directional focus. This section presents a menu of other research-based best practices that state and local policymakers can also consider as they work to close achievement gaps.

Cultural Respect and Recognition

Because U.S. society and its systems are Euro-centric, public education systems in this nation are typically designed for White students. To begin to address achievement gaps, it is critical to change this approach and confront inherent racist tendencies in schools. The importance of recognizing, understanding, and respecting the cultures of each student is raised in research. On pages 23, this report discusses the need for educators to learn capacities for demonstrating this in the classroom and during interactions with students.

Studies note that such celebrations must go beyond just recognizing cultural holidays like Martin Luther King Day and Cinco de Mayo. True cultural recognition requires teachers and administrators to explore and celebrate differences, and to infuse this recognition in the curriculum and school. Weld County District 6, for example, added kits for teachers that include books, cd's, videos, instruments, and other hands-on materials that showcase the Latino culture, resulting in positive feedback by students.[96] Adding multicultural aspects, and making minority and poor students feel like part of majority culture without being expected to discard their own, can develop student resiliency. Students stay engaged because they do not simply reject a system that does not recognize familiar cultural values. Belinda Williams asserts that cultural background and daily experiences must be valued because student thought patterns and

expressions are influenced by cultural experiences and students have abilities developed through interactions that may not be routinely recognized.[97]

One study found that the most effective programs that promote college access incorporate culture and language background in program structure and content. A New York City private, African American school emphasizing college preparation focuses on mutual respect, collective survival, and racial uplift through close staff relations.[98]

Increased Funding and other Resources

There are financial disparities between schools with more minority students and students from low-income families. Although state school finance laws (including Colorado's) have strong equalization provisions that guarantee equal amounts of public funds to districts, resources from communities and families can support more opportunities in wealthier schools. A 2001 study revealed that in 42 states, school districts with the greatest numbers of poor children have less money to spend per student (average of $1139) than districts with the fewest poor children.[99] The NASBE report cites estimates that argue that disadvantaged students need 20 to 40 percent more money per student.[100]

Students who are economically disadvantaged or who have limited English proficiency typically cost more to educate. A study found that better NAEP scores among Texas students compared to demographically similar students in California could partly be attributed to teachers reporting that they have the resources they need to teach. The North Carolina State Board of Education plan to improve education for disadvantaged students included the following recommendations:

- States should target additional resources to high-poverty districts and schools;
- Adequate funding must be inextricably linked with a statewide strategy for increasing system and student performance; and
- States should invest in the capacity of the education system, particularly the state education agency.[101]

Colorado, like many states, has limited fiscal capacity to add significant resources to the K-12 education system. Federal funds are also limited. The state can, however, make prudent uses of existing federal and state dollars, and help districts and schools access private or nonprofit grant funding and resources. Several districts in the state that have had closing achievement gap success used a range of dollars innovatively.

Sierra Grande

Leaders of the Sierra Grande School District readily point out that their academic accomplishments could not have been made without resources above their funding from the school finance act. Over the past several years, the district has attained a variety of federal and nonprofit grants in multiple areas that have increased its revenues above its state funding amount by 17.5 percent or $1400 per pupil by 2003-04. The purposes of the grants range from professional development to family support to technology to capital to extra learning.[102]

Cherry Creek

Cherry Creek directed $1.37 million in funding to its North Area academic improvements with dollars from the State Education Fund, district General Fund and district capital reserve fund. Amounts were used specifically for academic achievement, extended student learning, academic acceleration, staff development and support, student and family support.[103]

Fountain/Fort Carson

The Fountain/Fort Carson School District targeted achievement gap improvements by moving funding support to its site-based decision making and systemic coaching review programs.[104]

Reading and Literacy Focus

Studies emphasize the importance of literacy to closing achievement gaps. A 2000 report reported that research supports providing reading specialists, books for a student library, advanced text books, consumable workbooks, and other high quality print materials. The NASBE report recommends a standard and curricular focus on literacy and writing at all ages and across curricula.[105]

State and local policymakers focus on reading skills. The state sponsored a reading summit in October 2004. Lake County School District has made literacy its academic focus as part of its recent improvements in Hispanic student test scores. All students in the district are involved in a multi-sensory approach to reading and writing and individualized plans for students who are below grade level.[106] English language acquisition concentration is a common fundamental step by school districts in reducing achievement gaps among ELL students.

Early Childhood Education

As discussed on page 13, achievement gaps can be identified at an early age – by Kindergarten or before. A recent national study found that substantial inequalities in Kindergarten students' cognitive abilities stem from a lack of resources and educational opportunities. The authors linked achievement gaps to socioeconomic status at that age, also noting that 5-year olds in poverty owned far fewer books, are much less likely to have a computer, or be taken to a museum or public library.[107]

To close achievement gaps, studies suggest that states extend high-quality, academically focused early childhood education to all 3 and 4 year old children at risk of failure. Some researchers include full-day Kindergarten to 5-year olds as well. Research has found that high-quality early childhood education fosters social and school readiness skills, develops their interest in learning, and orients them toward academic achievement.[108]

National studies have found that quality preschool programs for poor and minority children produce a greater likelihood for better test scores, high school graduation, less grade retention, and fewer special education placements. The Colorado Preschool Program (CPP), which targets at-risk students, including those from low-income and homeless families, has similarly found that participants have comparatively higher CSAP scores, as well as reducing problem behaviors

and other at-risk conditions. The 2004 CDE report on CPP estimated that mitigating the volume of at-risk students generated significant savings for school districts of all sizes. Districts such as Mesa and Weld 6 found that Hispanic students who had participated in CPP scored better on some CSAP tests.[109] The Cherry Creek School District found that the district's preschool programs were helpful to its closing the achievement gap effort.[110]

Family Literacy/Adult Education

National research has found that disparities in parents' education and occupation contribute to cognitive inequalities among Kindergartners.[111]   The Colorado legislature recognized the negative effects of low parent education on early learning by making family education level one of the CPP eligibility factors. Several studies recommend that closing achievement gap efforts include meeting the needs of young children with family literacy programs.[112] The Cherry Creek School District offered ELA classes for families of students, GED classes for parents, and other family support services.[113]

More Time for Learning

A range of research studies call for extra instruction time for students as a way of closing the achievement gap. A recent report documented that Kentucky gives high-poverty schools extra funds annually to use to extend instruction in whatever way works best in their community: before and after school, weekends, or summers.   San Diego schools provide more time within the regular school day, especially for literacy and math.[114] A 2004 WestEd article maintains that a standards-based system that expects all students to reach academic proficiency should not be time-constrained. Options include extending the school day, school year, after-school support, or enhanced summer-school opportunities.[115] Other research recommends increased instructional time in reading, math, and other basic skills and intensive in-school aid for retained students.[116]

Schools are offering students expanded learning opportunities after-school, before school, in the evenings, or within the school day. A recent study suggests that schools provide African American and Hispanic students with more educational resources outside the home after school, help identify and respond to skill or knowledge deficits that underlie comprehension problems. Another study found that students' regular and quality participation in out-of-school activities are two of five factors that close the ethnic and income achievement gap.[117]

An elementary school with high numbers of poor and Hispanic students in Weld County District 6 added 20 days of student contact time per year, and a year later CSAP scores were significantly higher. In working to close achievement gaps, the Cherry Creek School District extended the Kindergarten day for students with no basic knowledge of colors, letters, numbers, and language. The district also extended middle school students' academic day to help with coursework, offers evening classes for high school students who need more graduation credits, increased summer school enrollment, and extends library/media time.[118]

Individualized Learning

Research has also recommended that schools and districts consider structural changes to implement small, personalized learning communities, which can foster teacher-student interaction, letting teachers know their students better academically and personally. Examples of these strategies include heterogeneous groupings and schools within a school. To enhance

teacher-student interaction, the National Association of Secondary School Principals (1996) recommended that every student have a personal adult advocate and a personal progress plan. The report also advocated that large high schools be limited to 600 total students and each teacher have no more than 90 students per term.[119]

Reduced Class Size

Some studies advise schools or districts that closing achievement gaps through more individualized student attention requires class size reductions, especially in the early grades.[120] A recent California report suggests that reducing class size to 20 students or fewer in high-poverty schools significantly narrows the achievement gap. The author suggests that class size should not be reduced in all schools, because that strategy drains good teachers away to less challenging schools, and low-performing schools replace them with less qualified teachers.[121] The Cherry Creek School District reduced class size in elementary grades to make instructional time more meaningful.[122]

Tutoring

To provide more supplemental individualized education supports and promote positive teacher-student relationships, several studies recommend more tutoring to promote positive relationships among educators and students.[123] The Cherry Creek School District's high school tutoring center, which provides support for students taking advanced classes, is making academic gains for minority students.[124]

Peer Networks and Mentoring

A recent Center for Education Policy study found one reason for an achievement gap is due to peer pressures that can cause minority students not to value academic success.[125] Some research notes that peer networks and cooperative learning can support ethnic diversity among minority students while supporting high achievement. Mentors can accomplish many roles: tutoring/academic assistance; motivation toward finishing high school and entering college; focusing students on a career and taking steps to get there; and being a role model for positive behavior.[126]

In California, Menlo-Atherton High School's youth development program provides mentors for African-American students with academic support and enhancement of life skills. It has helped increase African-American graduation rates by providing special attention and role models for at-risk students.[127]

Health and Nutrition

Some studies note that health factors contribute to an achievement gap, including low birth weight, hunger, and nutrition.[128] The Cherry Creek School District plans on increasing mental health services to all schools for families with economic problems, families who are highly mobile, and those learning ESL. The district is also considering whether to offer free immunizations so students aren't excluded from school for not having immunizations.[129]

Technology

A 2003 study found that the availability of appropriate technology-assisted instruction contributed to an achievement gap. Another recent study advises schools that aim to close achievement gaps to provide computer technology and staff trained in its use.[130] In Cherry Creek's effort to close achievement gaps in its North Area, the district is providing technology integration at a low-performing middle school and an institute for science, math and technology at an under-performing high school.[131]

Endnotes

[1] CDE 2004 CSAP results website.

[2] CDE 2003 Graduation results website.

[3] Colorado Children's Campaign, *The Wager of a Lifetime: High School Graduation Rates in Colorado*, 2004; CDE 2003 Drop Out results website.

[4] Title I, Section 1001 (Statement of Purpose).

[5] Colorado Accreditation Indicators, (C).

[6] CTAG Road Map for SB 254; HB 04-1433.

[7] *School Superintendent's Insider*, "Follow Seven Steps to Close the Racial Achievement Gap," November 2003, p. 2.

[8] The Release of the National Assessment of Educational Progress (NAEP) The Nation's Report Card: Reading and Mathematics 2003 (http://nces.ed.gov/commissioner/remarks2003/11_13_2003.asp).

[9] National Association of State Boards of Education, "Report of the NASBE Study Group on Closing the Achievement Gap," (Draft – August 12, 2004), p. 9.

[10] Joseph Sanchez, "CSAP Poverty Gap," *Rocky Mountain News*, August 7, 2004, 1A.

[11] NASBE report, p. 25.

[12] Roland G. Fryer and Steven D. Levitt, "Falling Behind," *Education Next*, Fall 2004, p. 65.

[13] NASBE report, (Draft – August 12, 2004), p. 9.

[14] Kati Haycock, Craig Jerald, and Sandra Huang, "Closing the Gap: Done in a Decade," *Thinking K-16*, The Education Trust, Spring 2001, p. 13.

[15] Fryer and Levitt, "Falling Behind," p. 65-66; NASBE report, p. 4.

[16] NASBE report, p. 18-19.

[17] *School Superintendent's Insider*, p. 2.

[18] NASBE report, p. 19.

[19] Cherry Creek School District North Area Task Force, "Closing the Achievement Gap in the Face of Shifting Demographics," 2003.

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