

COLORADO CHILDREN'S CAMPAIGN

High School Reform in Colorado: A History of Efforts and Lessons for the Future

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Introduction

True to its western heritage, Colorado has been a pioneer in seeking out educational innovation and change. Over the last several decades, the state often has been ahead of the national curve in implementing reforms like standards, accountability measures, and school choice. However, these changes, while arguably improving parts of the state education system, have failed to increase overall achievement, abysmal graduation rates or college attendance in any meaningful way. In fact, in January 2008, Education Week gave Colorado's public education system a grade of "C" and ranked it 38th in the nation in terms of overall educational performance and policies.¹ That same week, in his State of the State address, Governor Bill Ritter reiterated his goals of cutting the dropout rate and achievement gap in half and doubling the number of college degrees and certificates awarded, and announced a new package of reform policies. While there may be some disagreement as to how the state can support achievement of these goals, policymakers and advocates alike believe that improving the state's education system from preschool through college is critical to the future of Colorado and remains the best economic development strategy for the state.

Changes are needed throughout the state's education system, but nowhere is change more critical than at the high school level. Across the country, education reform typically starts with the elementary grades, always with the intention of working its way up to high school. Unfortunately, time after time, meaningful reform fails to make its way to the ninth grade or beyond. High school reform is often viewed as more difficult and less critical than reform at the elementary level. The very real need to "catch" children in the primary grades before they fail comes head to head with the challenges that make high school reform more difficult—including deep-seated student motivation issues, a wider diversity of student abilities, and entrenched methods of teaching the academic disciplines. The result is stagnation—a significant lack of systematic high school reform efforts. And while improvements at the elementary level are important, a true attempt to address dropout rates and college readiness must involve fundamental change for high schools. There is much work to be done.

The High School Challenge in Colorado

The need to complete a successful high school education has never been more important for an individual's future success. But, across the nation, high schools are not living up to their promise. U.S. high school graduation rates have remained virtually the same for the last 30 years—about 30 percent of students fail to graduate from high school with a diploma—while the intellectual demands of college, work and life have increased dramatically. Overall achievement in the U.S. continues to dip relative to other countries and students in most minority groups perform at levels far below their white counterparts. While the 1980's saw some success nationally in narrowing the achievement gap at the high school level, the gap has held steady, or in some cases widened, since 1992.² In addition, high school seems to be a large part of the problem—while elementary students are progressing reasonably well as measured on international tests in math and science, by the end of high school U.S. students' scores are below those of most other developed countries.

Colorado youth are not doing any better. According to a recent report from the Manhattan Institute, Colorado graduates only about 70 percent of its students on time, ranking Colorado 29th among states.³ Even more disturbing, the state's graduation rate has declined by around 10 percentage points since the early 1990s⁴—likely a result of Colorado's changing demographics. Among Colorado's minority students, graduation rates are much worse—while about 80 percent of white students graduated, only 61 percent of black students and 47 percent of Hispanics graduated.

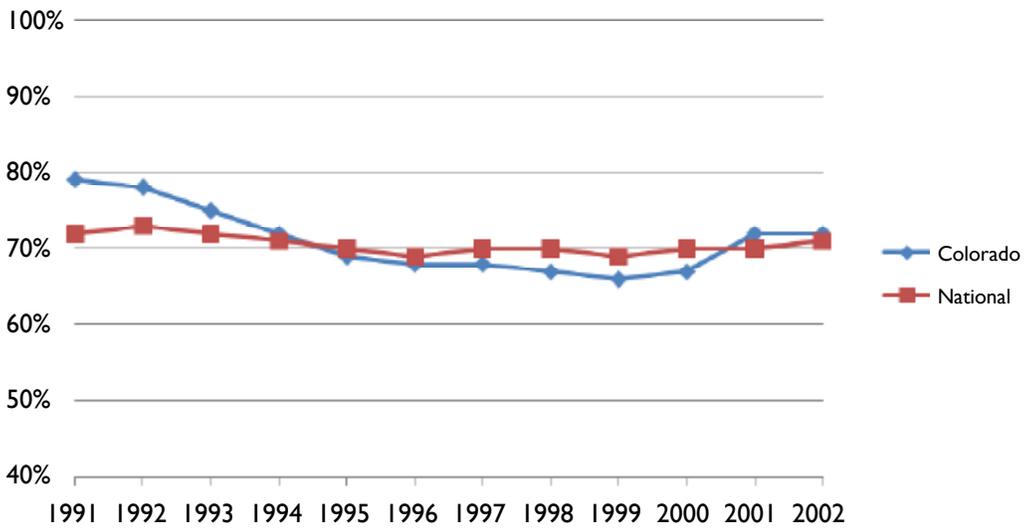
¹Education Week, "State Highlights Reports: Colorado," *Quality Counts 2008, Tapping into Teaching*, January 2008.

²Haycock, Kati and Sandra Huang. *Thinking K16: Youth at the Crossroads*, vol 5, issue 1, Winter 2001, Education Trust, Washington, DC.

³Green, Jay and Marcus Winter. "Public High School Graduation and College-Readiness Rates: 1991–2002", *Education Working Paper No. 8*, Manhattan Institute, February 2005.

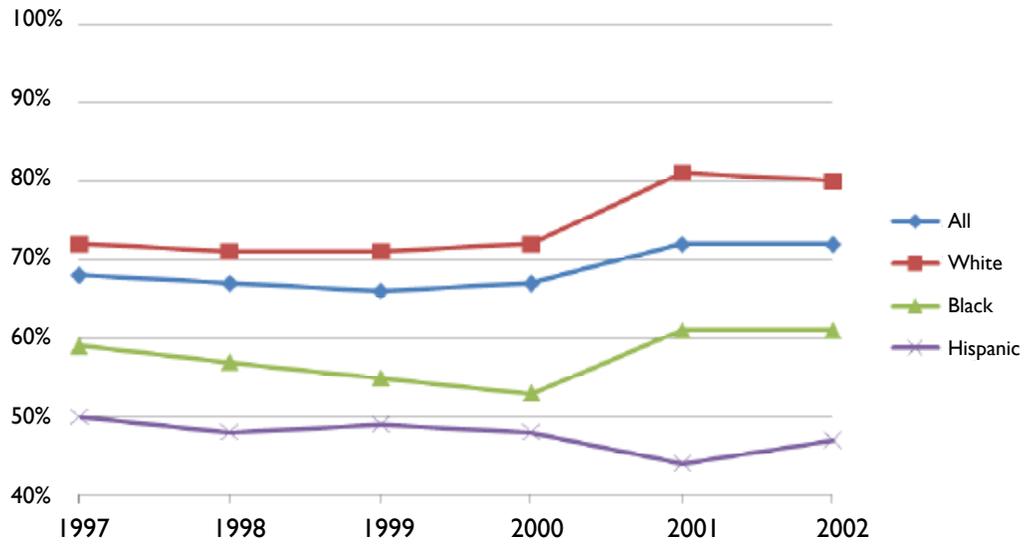
⁴Ibid.

High School Graduation Rates All Students 1991 - 2002



Source: Manhattan Institute for Policy Research

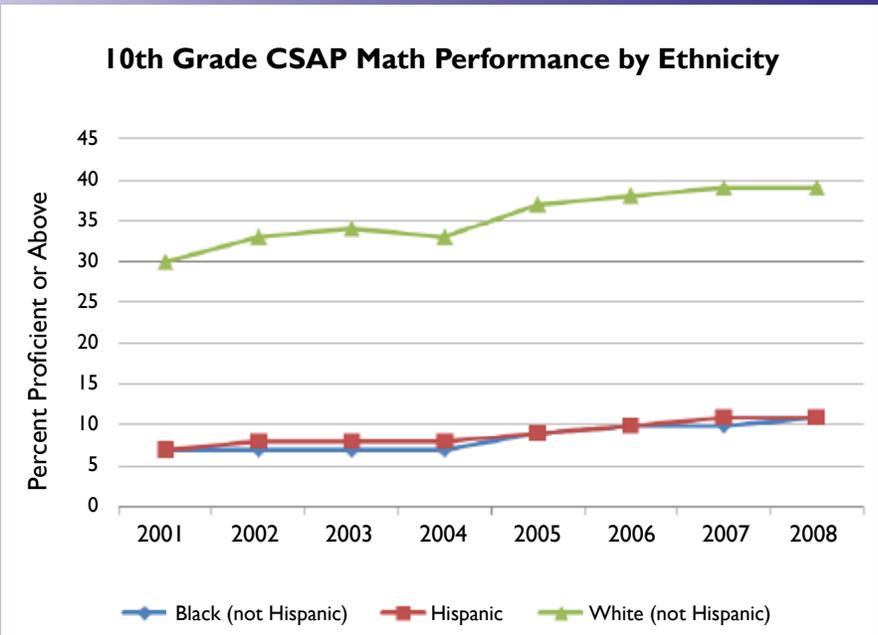
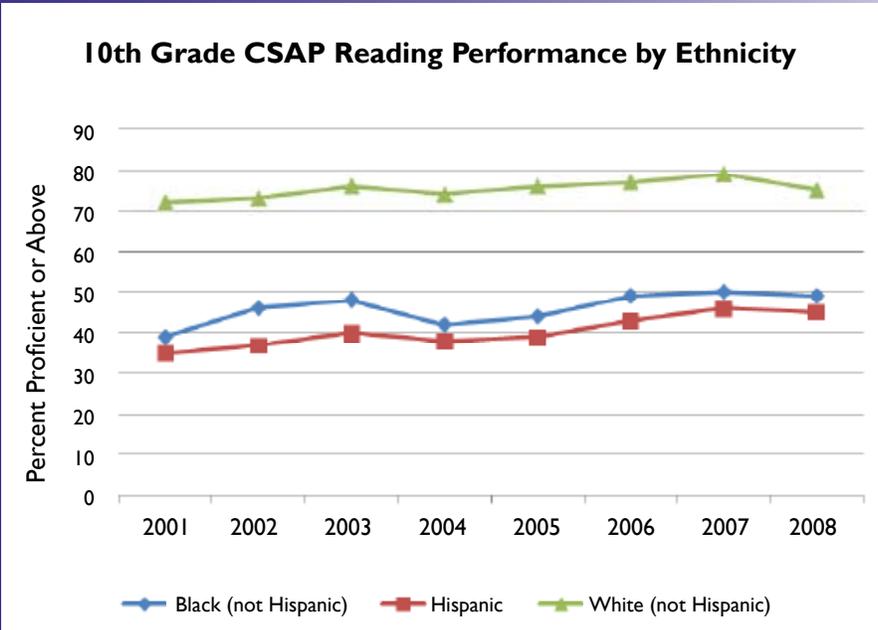
Colorado High School Graduation Rates by Race/Ethnicity 1997 - 2002

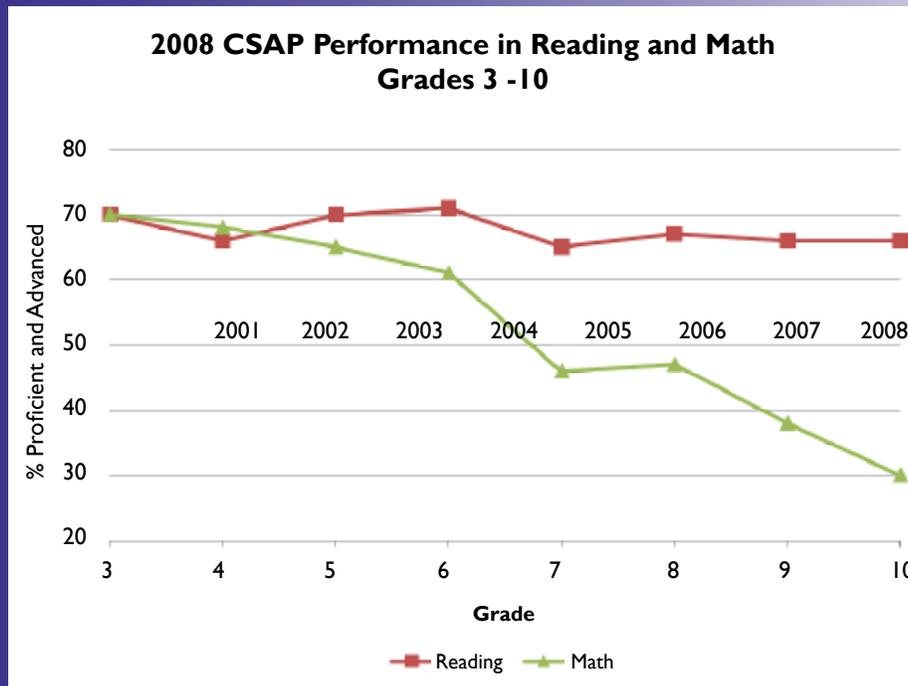


Source: Manhattan Institute for Policy Research

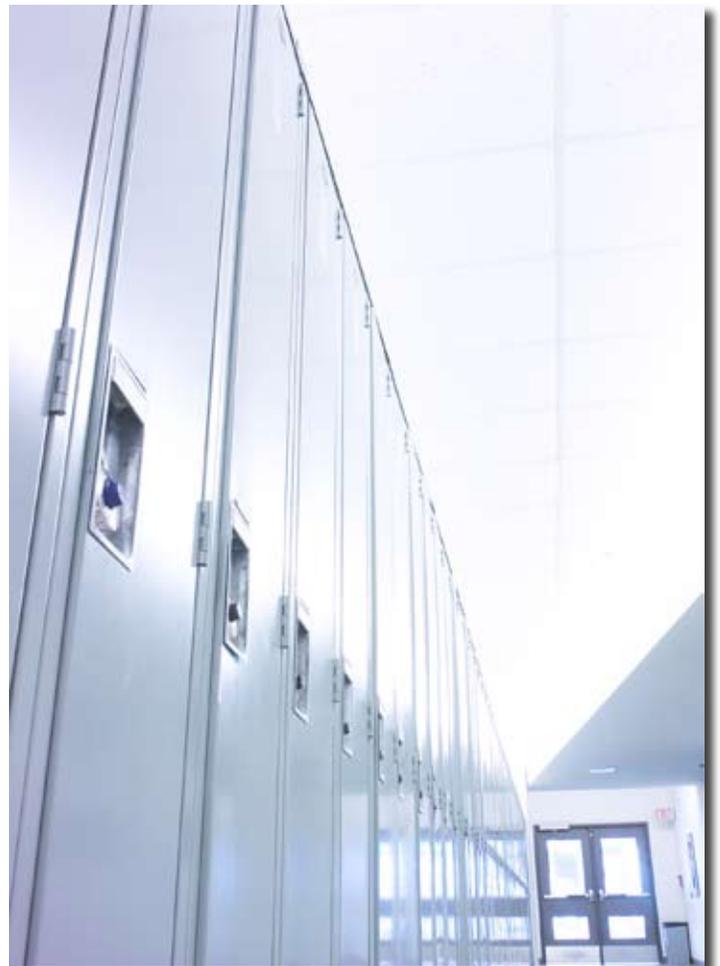
In addition to declining graduation rates, high school student achievement as measured by Colorado state tests is poor. Only about 66 percent of 10th graders score proficient or above in reading and only 30 percent are proficient in math. Trend data show only modest gains over the last five years. However, these figures mask the fact that most minority groups continue to perform at levels well below that of their white counterparts.

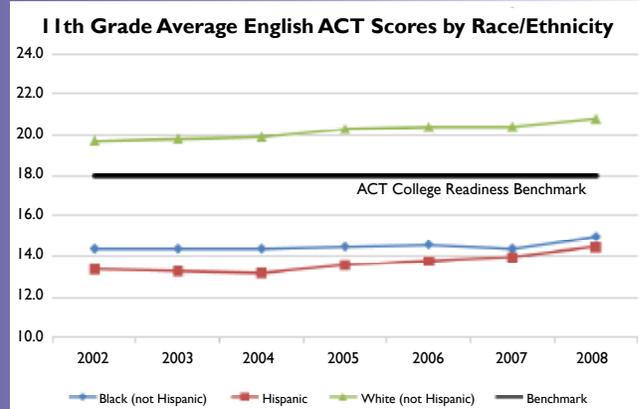
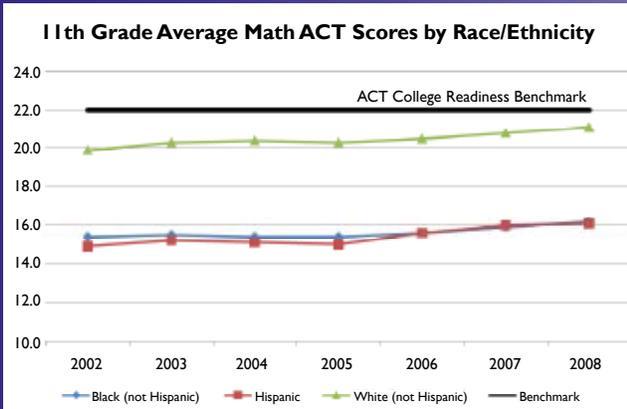
In 2008, 75 percent of white 10th graders scored proficient or better on the state reading test, while fewer than half of black 10th graders and only 45 percent of Hispanics scored proficient or better. Math achievement is particularly troubling for high school students. As students progress from the primary grades through high school, their relative achievement declines precipitously—in 2008, 70 percent of elementary school students, but only 30 percent of high school students, achieved proficiency in math.





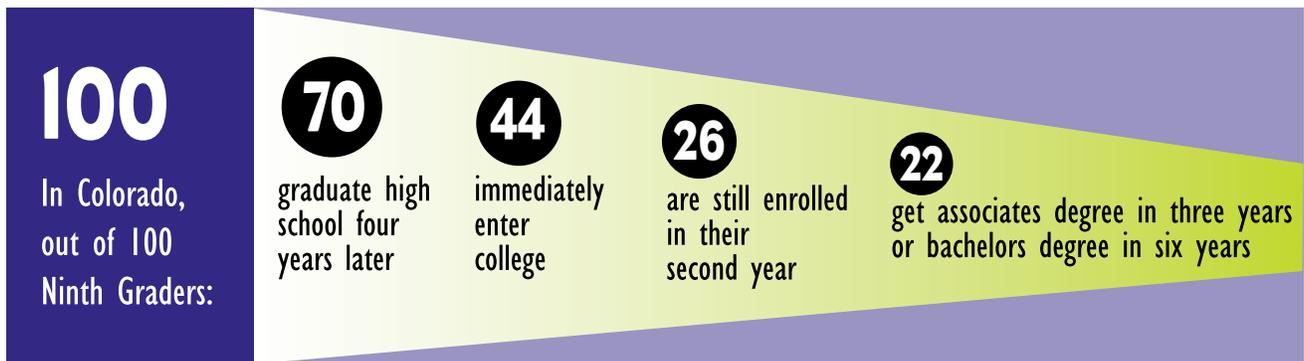
ACT scores among 11th graders in Colorado, who have been required to take the national college readiness test since 2001, are considerably higher among whites than among Hispanic and black students. Since the beginning of the ACT mandate in Colorado, only white students exceed the ACT’s “college readiness benchmark” in English, with the other ethnic groups lagging far behind. In math, the situation is dire—Colorado students as a whole are not ready for college level mathematics. White students have improved somewhat over the years and now come close to meeting the benchmark, but other ethnic groups score significantly worse. The mediocre results on the ACT math test suggests that students’ poor performance on the 10th grade math CSAP is not due entirely to characteristics of the test, such as an unreasonable cut score or a mismatch between what is tested and when the content is taught. Since the CSAP math assessment was first administered in the 10th grade in 2001, concerns have been raised that the test is too difficult in comparison to nationally-normed assessments such as the ACT or SAT, and that some of the content tested is not actually taught until the 10th grade or later. However, the fact that the average Colorado high school student graduates without the math skills required for college indicates that the state’s problem with math performance goes beyond how it is assessed.





Colorado high school graduates tend to be poorly prepared for college. Too few of them enroll in college and of those that do, few leave with a diploma in hand. The “education pipeline” in Colorado loses too many students along the way towards college. Of 100 entering high school freshmen, only 70 graduate from high school, and only 22 will end up graduating from college with either an associate’s degree in 3 years or a bachelors within 6 years.⁵

Colorado’s Education Pipeline*



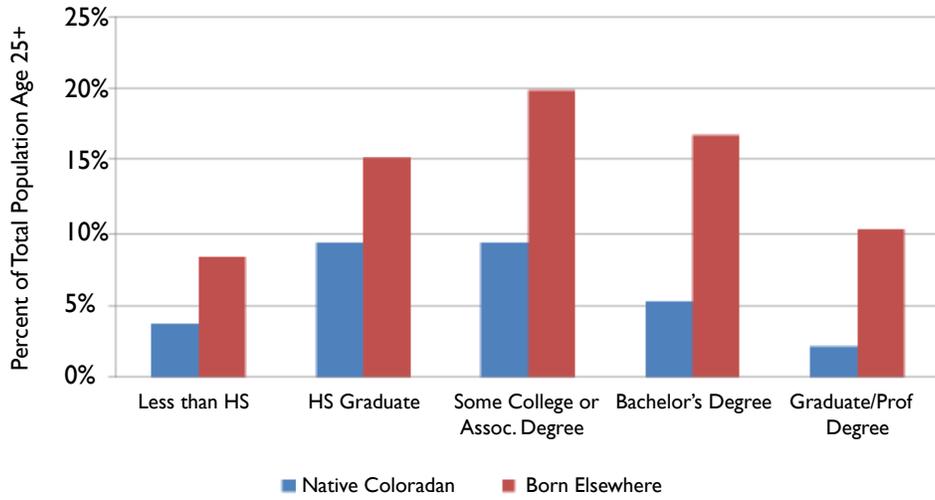
*Source: National Center for Higher Education Management Systems Information Center (HigherEdInfo.org)

We know that education beyond high school is increasingly important—it is a major driver of lifetime earnings and increased job opportunities, and is a key factor in minimizing societal inequities. And yet Colorado youth graduate from high school unprepared for college. At the same time that AP classes and dual enrollment programs are seeing increases in participation, 30 percent of first year undergraduates at state institutions require remediation in at least one core subject area and overall college attendance rates remain low at just over 30 percent in 2006—a rate that has changed little in the last decade.⁶ This is all the more vexing for the future state economy because Colorado’s adult workforce, fueled by in-migration to its popular cities like Denver and Boulder, is one of the most highly educated in the country.

⁵Colorado Accountability Report, 2005-2006 School Year, Center for Education Policy Analysis, Colorado Children’s Campaign, Donnell-Kay Foundation and Piton Foundation, 2006.

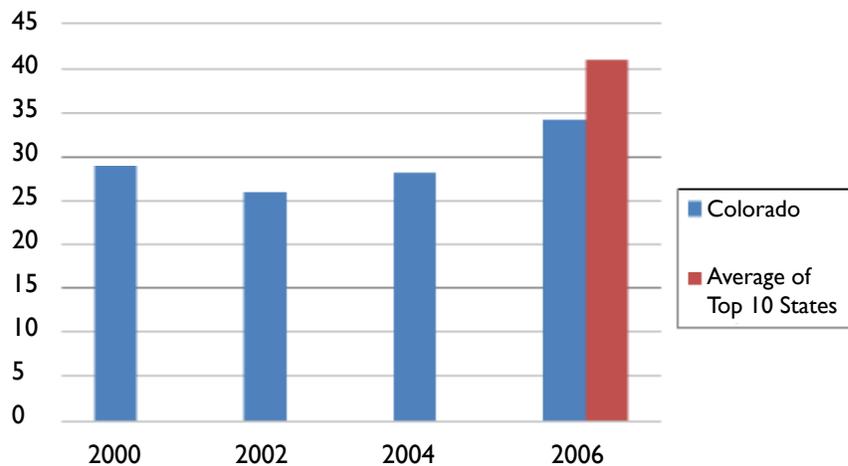
⁶The National Center for Public Policy and Higher Education, *Measuring Up: The State Report Card on Higher Education, for years 2000, 2002, 2004, and 2006*. San Jose, CA.

Educational Attainment by Place of Birth (2006)



Source: The National Center for Public Policy and Higher Education, Measuring Up: The State Report Card on Higher Education, for years 2000, 2002, 2004, and 2006. San Jose, CA.

Percent of 18-24 Year-Olds Enrolled in College



These statistics paint a troubling picture of Colorado’s future. While plenty of students are succeeding in Colorado high schools, many are not. If Colorado is going to prosper and provide its increasingly diverse citizenry with opportunities to succeed, something must be done about the state of its high schools.

A History of Efforts: State and Federal Policy and Private Philanthropic Initiatives

The dismal statistics regarding Colorado's high school performance are not the result of a lack of effort. A great deal of effort has been expended by state and federal policymakers and philanthropic entities to improve outcomes for high school students.

State Policy

Starting with reforms implemented during the governorship of Roy Romer in the mid 1980's, through the term of Governor Bill Owens in the early 2000's and to the current policies and proposals under development by current Governor Bill Ritter, Colorado has implemented policies over the last two decades addressing the nation's major themes in education reform—choice, standards and accountability. However, for the most part, high school achievement, graduation rates and college-going have not improved. The following sections, organized by the four main reform themes of public school choice, standards and assessment, accountability, and educational alignment and improvement, outline the major reforms. While very few of these reforms apply only to high school, the author has attempted to include those reforms that have had a significant impact on those who lead, teach or attend high schools.

PUBLIC SCHOOL CHOICE

Colorado was an early and active participant in enacting policies expanding public school options for parents and their children. Groundbreaking legislation establishing interdistrict choice and charter schools was enacted during the Romer administration, but the administrations of Governors Owens and Ritter have continued support for public school choice.

Public School Choice Act of 1990

One of the first notable school choice reforms was the Public School Choice Act of 1990. This law, introduced and signed by Governor Romer, allowed students the option of transferring to other schools within and outside of their home school district, subject to capacity limitations and other special cases.⁷ Prior to the enactment of this law, and still the case in many states, young Coloradans were only allowed to attend the school to which they were assigned. Public school choice represented the opening salvo in a move to bring more choice to the Colorado education system. It was a first attempt to give more power to parents and students, and started prodding schools to think more carefully about the set of goods and services they were offering to families, something that the state would see much more in the future. Choice is seen as particularly important at the high school level where students' interests are broadening and they are poised, if properly supported, to take more responsibility for their own learning.⁸

Charter Schools

Another choice initiative adopted during the Romer era was the law establishing charter schools in 1993. Colorado was only the fifth state in the country to enact a charter school law. Charter schools are publicly funded schools that have been granted a charter by a local school district or the state exempting them from certain state and local rules and regulations. Charters were and are seen by many as a way to offer more choice to public school students, as well as a vehicle for stimulating long-term change and innovation in the state's education system. Colorado's initial charter law limited the number of charters in the state to 50, but subsequent changes have removed the cap and added a state authorizing body that can grant charters in cases in which local school boards have been deemed "charter-unfriendly."

⁷From a summary of choice provisions prepared by The Heritage Foundation, accessed August 2008 at <http://www.heritage.org/research/education/schoolchoice/>.

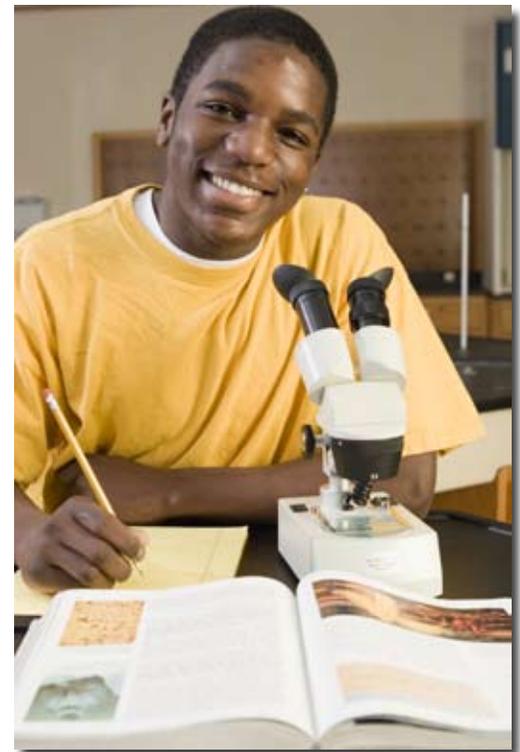
⁸Colorado Children's Campaign, *High School Policy in Colorado*, March 2004.

The number of charter schools in Colorado has grown steadily, starting with 22 schools serving 4,000 students in 1995 and growing to 144 approved charters serving over 55,000 students in 2008. Colorado charters currently serve five percent of the total student population, which is the fourth highest state charter school penetration percentage in the country. In the early years, Colorado charter school enrollment tended to comprise mostly white and middle-income students, but charters are increasingly serving low-income and minority students—particularly as Denver Public Schools has become more open to charters.¹² In 2005, about 37 percent of Colorado charters served high-school students—either in traditional 9th-12th grade arrangements or in schools serving kindergarten through 12th grade students.¹³ While elementary and middle school charters have outperformed public schools as a whole, charter high schools have tended to underperform, reflecting the fact that Colorado charters serving the primary grades tend to serve more advantaged children than charter high schools. Although the full impact of charters on the educational landscape in Colorado is not yet clear, many observers believe that charters have succeeded in stimulating some of the state’s school districts to reconsider the services and academic programs they are offering, to take a more “customer” focused point of view and to push themselves to innovate.

Dual Enrollment and 5th Year High School

Another important development for high school choice enacted during the Romer years was the passage of the Post-secondary Enrollment Options Act in 1988. This law allowed juniors and seniors to enroll for free in college courses at public and private institutions across the state, and allowed students to capture both high school and college credit. The program seeks to provide high-school students with additional academic rigor and stimulation, while also allowing them to get a head start on their college coursework. In the 2004-2005 school year, 5,393 students took advantage of this program in 134 school districts across the state, representing about 5.2 percent of statewide 11th and 12th grade enrollment.¹⁵

In 2001, state policymakers raised concern over so-called “5th year programs,” in which students could elect to extend their high school education for five years and graduate with both a high school diploma and an associate’s degree. These programs enabled students to earn 60 college credit hours between their junior year and 5th year of high school. State leaders objected when it became apparent from a state audit of the program that school districts continued to collect the full amount of per-pupil revenue for these students for an additional year, while colleges were also collecting state FTE funding for these students—a case of “double dipping.” Two years later, the State Board of Education passed a rule prohibiting the use of state K-12 education dollars to fund 5th year programs based on a recommendation from the top executives of the state’s Departments of Education and Higher Education. In 2005, however, State Board members challenged the education department executives’ interpretation of the issues raised by the state audit and attempted to overturn the prohibition, just failing by a 4-4 party-line vote. By the summer of 2007, supporters of the 5th year programs were successful in convincing the State Board to unanimously reinstate state funding for these programs.



⁹Colorado Department of Education, *Charter Enrollment 1994-2005*, accessed at <http://www.cde.state.co.us/cdechart/download/1995-2004CharterEnrollment.pdf>
¹⁰U.S. Department of Education, National Center for Education Statistics, “Public Elementary/Secondary School Universe Survey,” Common Core of Data (CCD), 2004–05, Version 1a., Table 2.

¹¹Ziebarth, Todd, *Peaks and Valleys: Colorado’s Charter School Landscape*, The Progressive Policy Institute, December 2005, p. 15; accessed at http://www.ppionline.org/documents/Colorado_Charter_1220.pdf

¹²*Ibid.*, p. 17

¹³*Ibid.*, p. 5

¹⁴Colorado Legislative Council. “Postsecondary Enrollment Options,” *Colorado Legislative Council Staff Issues Brief*, April 9, 2007, accessed at <http://www.cde.state.co.us/artemis/ga4/ga4200703internet.pdf>

STANDARDS AND ASSESSMENT

Colorado was also a national leader in the standards-based reform movement, establishing model content standards and state assessments well before the federal No Child Left Behind act mandated them for all states. State standards and assessments were initiated in 1993 during the Romer administration, expanded under Governor Owens, and are currently undergoing a major revision under Governor Ritter's leadership.

Standards and Assessment: CSAP

The same year that saw passage of the charter school law (1993), also ushered in the Colorado Model Content Standards and its companion assessment, the Colorado State Assessment Program (CSAP). In the late 1980's and early 1990's, the standards-based reform movement was gaining momentum across the country. Prior to this time, what was taught in the classroom tended to have evolved as a result of school textbook choices, course descriptions, individual teacher preferences and standardized tests—there were no explicit standards for what students should know and be able to do. Standards were seen as a way to measure students against a common benchmark and ensure that students across the state were receiving a comparable education.

In Colorado, Governor Romer appointed a council to develop standards in reading, writing, mathematics, science, history and geography. These Model Content Standards were developed and the first state assessment was given in reading and writing to 4th graders in 1997.¹⁶ The subject areas covered by the voluntary state standards have since been expanded to include civics, dance, economics, foreign language, music, physical education, theater and visual arts.¹⁷ The companion test, the CSAP, was subsequently expanded, and currently students in grades 3 through 10 are tested yearly in reading, writing and math, and in science in grades 5, 8 and 10.

CSAP continues to be debated. Many support the test, but there are those who would eliminate the test, particularly for high school students, in favor of national tests like the ACT test suite that are explicitly geared towards college readiness and acceptance. Despite these ongoing debates, Colorado's state policymakers have continued to support and expand the role of the CSAP in the state's accountability system.

Opponents of CSAP point to a variety of problems: the test is challenging to administer and grade, schools don't receive scores in time to make useful classroom and curriculum adjustments, and students have little or no incentive to do well on the CSAP because it isn't used for promotion or grading. CSAP will likely continue to be the major assessment for the primary and middle grades, but the future of CSAP for high school students is currently unclear.

More Testing: CSAP expansion to high school and ACT

Governor Owens took two major actions to expand student assessment. In 2000, he continued the work started in the Romer administration and expanded the CSAP program to cover grades 3 through 10. That same year, he added a new testing requirement: all 11th graders would take the ACT test, a national college admissions test (akin to the SAT) that tests high school students in English, reading, mathematics and science. The mandated ACT would serve many purposes: a measure of the extent to which high schools were preparing students for college, a tool for pushing high school curriculum into better alignment with college requirements, and a way to help students overcome a barrier to college acceptance.

In addition, it was thought that students might put more effort into the ACT because of its real-world significance. One of the weaknesses of the CSAP is that students have no individual incentive to perform as there are no minimum CSAP scores required for promotion or graduation, nor are scores listed on student transcripts. Over the seven years since the ACT was implemented, statewide average scores have increased slightly from 20.1 to 20.5.¹⁸ However, a comparison of ACT scores in the 11th grade to CSAP scores in the 10th grade doesn't bear out the argument that the "high-stakes" ACT test would elicit better test performance from students.¹⁹ In addition, college attendance rates over the same period haven't changed much, undermining the argument that if an expanded population of students took the test and proved themselves college ready, they would enroll in greater numbers.

¹⁵Center for Public Education, *A Guide to Standards-Based Reform*, accessed August 2008 at http://www.centerforpubliceducation.org/site/c.kjXJ5MPlwE/b.1505663/k.1F96/A_guide_to_standardsbased_reform.htm

¹⁶Walsh, Mark. "Romer Signs Standards, Charter-Schools Bills in Colorado," *Education Week*, June 16, 1993

¹⁷Colorado Legislative Council. *Colorado K-12 Student Assessments: Standards and Reform in Colorado Public Schools*, November 2000, accessed at http://www.state.co.us/gov_dir/leg_dir/lcsstaff/2000/research/00K-12studentassessment.htm.

¹⁸ACT, Inc. *ACT Average Composite Scores by State*, for the years 2001, 2002, 2003, 2004, 2005, 2006, 2007 and 2008, accessed August 2008, at www.act.org.

¹⁹Meyer, Jeremy. "Colorado ACT score ranks 22nd," *State Denver Post*, August 15, 2007

ACCOUNTABILITY

Colorado's education accountability system, using CSAP test results as a foundation, was established during Governor Owens' tenure, with the state's first school accountability reports being issued in 2001. In 2008, under Governor Ritter's leadership, a measure of student achievement growth was incorporated into the accountability system for the first time. Throughout this period the state strived to improve its educational data and reporting systems to support the increasing demands of state and federal accountability requirements.

School Accountability Reports

The federal No Child Left Behind Act of 2001 is noted for bringing an unrelenting focus on testing and accountability to schools across the country, but Colorado passed its own accountability law the year before. Building on the CSAP tests that now covered students in elementary, middle and two years of high school, the state released the first-ever School Accountability Reports in 2001 rating its 1,400 schools from "excellent" to "unsatisfactory" according to test scores. In that same year, the Charter School Law was changed so that schools receiving an "unsatisfactory" rating were given three years to improve or face the forced transition to a charter school. In the first year, 18 elementary schools, seven middle schools and five high schools across the state received the lowest ranking.²⁰ The first and only school so far to have been subject to the charter takeover sanction under this law was Denver's Cole Middle School in 2005. KIPP, a private charter school operator, was tapped by the state to run Cole, but by most accounts, the takeover was not successful.²¹

Data System Improvements

In 2001, the Colorado legislature directed the creation of a statewide data system with the capability of tracking individual student academic progress from year to year. Prior to this, state education data systems, including Colorado's, were designed to provide point-in-time data that aggregated information at the school and district level. The creation of a unique student identifier in 2006 was the linchpin of the new data system and allowed the state to begin reliable tracking of student scores from year to year. This change allowed the state's developing accountability system to be a more precise tool enabling educators and researchers to track student progress over time and across school and district boundaries. The data system also includes information on student characteristics allowing for richer analysis.²² In addition to the student level identifiers, in 2007 the state legislature established a commission to explore the creation of a unique teacher identifier. This teacher identifier would allow the state a greater level of precision in tying individual teachers to student progress, as well as many other benefits.

Colorado Growth Model

In the fall of 2008, the state formally implemented the Colorado Growth Model as part of the state accreditation program.²³ For the first time, growth in student achievement will be part of the accountability system instead of merely the percentage of students who are meeting proficiency standards. The new system will show student scores from year to year, the degree to which students improved over that time, how that growth compares across students, and how much growth is needed to reach proficiency or advanced levels. Rather than simply showing a school's ranking according to the number of students scoring proficient or above, this new system will show the extent to which schools are improving.²⁴ This will provide much richer data for educators in districts throughout the state and a more precise tool for the state accountability system to identify schools that are moving students forward as expected and which are not. Intriguingly, these districts may—or may not—be those with the highest overall scores.

²⁰ Walsh, Mark. "Colorado Unveils First School Rankings," *Education Week*, September 26, 2001.

²¹ Gottlieb, Alan "Earlier, Smarter Intervention Could Have Saved Cole, Insiders Say", *The Term Paper*, Volume 4, number 1, January 2005, Piton Foundation; Mitchell, Nancy. "Critical Eye Cast at First School Takeover," *Rocky Mountain News*, September 13, 2006; Anderson, Amy Berk and Dale DeCesare. *Opening Closed Doors: Lessons from Colorado's First Independent Charter School*, paper prepared for the Donnell-Kay Foundation and the Piton Foundation, September 18, 2006, accessed August 2008 at <http://www.dkfoundation.org/pdf/ColeReport18Sept2006.pdf>.

²² Colorado Children's Campaign. *State Education Data Systems: How Does Colorado Measure Up?*, 2008; Jackson, Terry L., and Eileen Ahearn, *Quick Turn Around Forum: Unique Student Identifiers*, National Association of State Directors of Special Education, May 2004, accessed at http://www.projectforum.org/docs/unique_student_identifiers.pdf

²³ The law directing the development of a growth model was originally passed in 2004 during the Owens administration, but in 2007 the original model was discarded and a law was passed mandating a revision to make the data more useful.

²⁴ Colorado Department of Education, *Colorado's Growth Model: Charting the Course to Post-secondary Readiness*, presentation prepared by the Colorado Department of Education, March 2008, accessed at <http://www.cde.state.co.us/cdeedserv/download/pdf/ColoradosGrowthModelPresentation.pdf>.

EDUCATIONAL IMPROVEMENT AND ALIGNMENT

In recent years, both Governors Owens and Ritter have led initiatives to improve school performance and productivity and to better align K12 standards and graduation requirements with post-secondary admissions standards. These reforms ranged from the establishment of state commissions, to the creation of a policy framework for supporting innovative schools, to a rethinking of the transition from high school to higher education and careers.

State Commissions

Governor Owens established two commissions that examined issues of relevance for high school—the Closing the Achievement Gap Commission and the Colorado Educational Alignment Commission.

In 2003, the Closing the Achievement Gap Commission was established and charged with identifying a set of strategies for helping the state’s schools eliminate the marked differences in achievement levels between white, black and Hispanic students, as well as middle and lower income students. This council issued a report in November 2005 addressing data needs, establishing a culture of high expectations, college preparation and articulation between K12 and higher education, teacher and administrator quality and parent and community involvement.

Also in 2003, the Colorado Commission on Higher Education, the governance body for the state’s college and university system, established uniform admissions standards for all four-year public postsecondary institutions in the state in an attempt to push high schools to help first-year college students who were not yet ready for college-level work.²⁵ Because this effort was independent of the establishment of the state’s K-12 content standards and because Colorado is one of only six states that do not have uniform statewide graduation requirements, education leaders recognized a glaring need for coherence in expectations for high-school students across the state’s education system.

In 2005, the Colorado Educational Alignment Council was established to develop recommendations for ensuring that high school graduates are adequately prepared for entrance into the postsecondary education system or the workforce. This council recommended that the state adopt a set of minimum high school graduation requirements that would include four years of English and math, three years of science, and three and a half years of social sciences. In addition, the council recommended improvements to the state’s content standards and to the assessment system, including end-of-course exams and electronic test administration to improve the speed in which results are available.²⁶ These recommendations were met with some consternation across the state as conflicting with Colorado’s long-standing belief in local control of education. The legislature rejected virtually all of the recommendations from the council.

P20 Education Coordinating Council

The P20 Education Coordinating Council was proposed in Governor Ritter’s education platform and was launched soon after he took office in 2007. “P20” is shorthand for the full continuum of public education from early childhood through post-graduate study. The purpose of the P20 Council was to improve articulation and connect the state’s distinct education systems. The P20 Council issued its first set of recommendations at the end of 2007, and there were few substantive recommendations relevant to high school. Those that pertained to secondary education included development of a statewide guidance policy oriented towards postsecondary preparation; expansion of the state’s dual enrollment program; development of diploma endorsements (e.g., college-ready, career-ready); study of state policies impacting the dropout rate; and participation in additional pre-collegiate ACT tests to help promote and assess college readiness.



²⁵ Colorado Education Alignment Council, *Aligning Colorado’s Education System: A Report for the Colorado General Assembly, State Board of Education, Colorado Commission on Higher Education and Citizens- Executive Summary*, September 26, 2006, pg. 3.

²⁶ Ibid.

Colorado Achievement Plan for Kids

Governor Ritter called his Colorado Achievement Plan for Kids (CAP4K), unveiled in March 2008, a “landmark piece of education-reform legislation.” CAP4K is derived in part from the first set of recommendations from the P20 Council and was very much in line with the recommendations coming out of the Governor’s Graduation Guidelines Council.²⁷ CAP4K is based on the philosophical assumption that the primary purpose of K12 education is post-secondary preparation. It seeks to align the education systems from preschool to college and moves towards a system of promotion based more on mastery of skills than passing specific courses. Specifically, the law requires the State Board of Education and the Colorado Commission on Higher Education (CCHE) to work together to revise the state’s Model Content Standards and state assessments. The State Board of Education is charged with developing criteria for an honors-type diploma. CCHE is directed to modify admissions policies to take into account proficiency in subject areas rather than just seat time in specified courses. CAP4K will be implemented according to what some critics have labeled an overly long timeline, with the full set of reforms to be in place in 2014.

Innovation Schools Legislation

According to observers, one of the most promising proposals to have come out of the 2008 legislative session is a law introduced by Peter Groff, Colorado State Senate President. The Innovation Schools legislation makes it easier for reform-minded schools or groups of schools to gain exemption from certain state and district rules and regulations, as well as certain union contract provisions. Support for this law was near-unanimous from the state’s education interest groups, including unions who lobbied for some changes to the law, most notably a requirement that 60 percent of a school’s unionized teachers vote to support the school’s request. This law allows schools to request exemptions from requirements such as timelines for staff hiring notices, work rules impacting school schedule and calendar, or district curricula.

The bill was introduced in response to challenges faced by a group of administrators and teachers at Bruce Randolph Middle School in Denver who received school board support for their reform agenda, but faced strong union opposition to requests for waivers from certain union rules. Eventually, the school reached agreement with the union, but in the meantime Peter Groff introduced and secured passage of this legislation to support schools like Bruce Randolph across the state. This law gives districts the ability to “compete” with charters by creating the possibility for “charter-like” conditions inside the district structure.

The key national education themes of the last two decades—standards and assessment, choice, and accountability—are well represented in Colorado. There has been time, effort and resources dedicated to determining what students should know and be able to do, developing assessment to measure student abilities, and crafting systems and sanctions for holding schools accountable. Over this same period, however, there has been no significant state level program designed specifically to support struggling schools in improving achievement for high school students or to help stem the dropout rate.

²⁷ The Colorado Graduation Guidelines Council was established by the legislature to study the establishment of state graduation guidelines after the Alignment Commission recommendations were rejected. The Council issued its report, *Reimagining High School in Colorado*, in May 2008. The report advised against the establishment of specific course requirements for graduation in favor of a proficiency-based system founded on the state content standards. *Reimagining High School in Colorado* is available at www.colorado.gov.

Federal Policy

Federal policy of the last decade also has had an impact on high schools in Colorado, although in many ways less so than in other states because Colorado had already implemented strong accountability measures prior to passage of the federal No Child Left Behind Act of 2001 (NCLB). NCLB has been the subject of much heated discussion among educators and advocates, policymakers, parents and students alike. NCLB requires that all students be proficient in reading and math by 2014, as defined and measured by state tests. It requires that states test students annually in grades three through eight, and once during high school, and establish annual targets by which schools would measure student performance overall and for a variety of subgroups. It also set up sanctions for districts and schools that fail to meet their targets or demonstrate “adequate yearly progress.” The law is lauded by some for its focus on accountability and the push for schools to make measurable progress in improving achievement for all students, although the mechanisms, implementation and unexpected consequences continue to be hotly debated.

Although the provisions and sanctions of NCLB apply to all public schools, kindergarten through high school, the primary focus of NCLB has been the elementary grades since the trigger for its accountability sanctions is receipt of federal Title I funds, and very few high schools receive these funds.²⁸ NCLB does include other provisions that have an impact on high schools, including a requirement that states set graduation-rate goals.²⁹ However, the U.S. Department of Education recognized the limitations of state graduation rate calculations, and in April 2008 the Department proposed regulations to standardize state graduation rate calculations and to clarify that graduation rates are used to calculate adequate yearly progress for high schools.³⁰ In addition to federal action, the Council of Chief State School Officers has been working with states to voluntarily adopt a standardized graduation rate formula and, in Colorado, the Colorado Children’s Campaign led efforts to adopt a more rigorous high school cohort graduation rate calculation that was first implemented for graduates in the 2005-06 school year.

Aside from the general provisions of NCLB, there are few sizable programs that focus specifically on high school improvement or restructuring. One promising initiative is the Smaller Learning Communities program administered by the U.S. Department of Education.

SMALLER LEARNING COMMUNITIES

The Smaller Learning Communities program was developed in response to a growing belief that many students feel alienated in large, impersonal high schools and that this isolation contributes to low achievement and increased dropout rates. This program provides grants directly to local school districts to implement smaller learning communities within high schools of 1,000 students or more. Grantees are free to choose from a variety of restructuring initiatives designed to create smaller communities of teachers and students within schools and, if desired, to combine with additional strategies like block scheduling, teacher advisories, or multi-year grouping.

The program, currently funded at about \$95 million per year, has provided grants to 580 districts and almost 1,400 schools since 2000.³¹ A 2008 report examining the implementation of the Smaller Learning Communities program by its first set of sixty grantees provides little assessment of outcomes due to the study design. The study found no improvements in academic achievement, but there did appear to be some gains in students’ attachment to school, promotion from 9th grade to 10th grade, and other factors that could contribute to increased achievement and decreased dropout rates in the long term.³²

²⁸ Alliance for Excellent Education, “In Need of Improvement: NCLB and High Schools,” *Policy Brief*, June 2007 accessed at http://www.all4ed.org/files/archive/publications/NCLB_HighSchools.pdf

²⁹Ibid.

³⁰73 Fed. Reg. 22019-22044, April 23 2008.

³¹Calculated from data retrieved July 2008 from the US Department of Education’s Smaller Learning Communities Awards Database, available at <http://slcprogram.ed.gov/cgi-bin/mysql/slcawards.cgi?l=summary-state>.

³²Bernstein, Lawrence, et al., *Implementation Study of Smaller Learning Communities: Final Report*, U.S. Department of Education, May 2008, accessed July 2008 at <http://www.ed.gov/rschstat/eval/other/small-communities/final-report.pdf>

Private Philanthropy

One critical driver of the growing interest in improving high schools at the national level has been the interest of private foundations, the largest and most influential of which is the Bill & Melinda Gates Foundation. Recognizing that “America’s high schools are obsolete,”³³ the Gates Foundation embarked upon a massive effort to change the way America’s high schools do business. Initially, the primary focus of the foundation’s \$1 billion-plus grant making strategy was to expand the supply of high-quality high schools across the country by creating “islands of excellence” —with a particular focus on providing opportunities to kids with the greatest need. As of 2006, Gates had provided support to over 1,800 high schools serving over 1 million students—1,100 of those are new schools and over 700 are existing high schools.³⁴

In addition to direct investments in high schools, the foundation has also invested significant funds in support of district-wide reform, as well as advocacy efforts at the state and national level. While just a drop in the huge bucket of education spending across the states, this investment brought the issue of high school reform to the national agenda after years of sporadic efforts and weakening resolve. The Gates Foundation’s efforts focused on creating or enhancing learning environments that emphasized the “three Rs”—rigor, relevance and relationships.³⁵ After seven years of investment, the foundation is reconsidering its one-school-at-a-time approach, recognizing the limitations of that strategy to influence the structure and practices of the massive American education system.

COLORADO SMALL SCHOOLS INITIATIVE

As a component of its national high school initiative, Gates provided an \$8 million grant to support the Colorado Small School Initiative (CSSI) in 2001. CSSI was predicated on the notion that the modern, comprehensive high school is failing many of Colorado’s students, especially those with the highest need. This large grant, administered by the Colorado Children’s Campaign, provided support to restructuring initiatives at existing high schools as well as grants to develop small charter high schools across the state, including four high-tech high schools. Grantees included the Denver School of Science and Technology, a charter high school in Denver that reserves 40 percent of its slots for low-income students; Mapleton Public Schools, a district that phased out its single comprehensive high school and created what are now six smaller new schools each with a unique educational approach; the Arrupe Jesuit High School, a parochial school with a work-study orientation; and the Manual Educational Complex, a large comprehensive high school that split into three smaller schools. The Colorado Small Schools Initiative had some unqualified successes—the Denver School of Science and Technology, and Arrupe Jesuit, for example—but also some disappointing failures, including Manual High School.

Manual High School: Conversion Challenge

Manual High School was one of the Colorado Small Schools Initiative’s most challenging efforts—conversion of one of the lowest performing and highest student poverty schools in the state into three smaller autonomous schools in a very short time frame. The conversion of Manual High School had great potential, but in the end, the conversion of this storied high school failed to live up to that promise.

Founded in the late 1800’s, Manual High School is Denver’s oldest high school. In 1969, as a result of a U.S. Supreme Court decision, the school system began busing white children from outlying neighborhoods to integrate Manual. However, in 1995, a judge rescinded the desegregation order, and Manual chose to become a neighborhood school once again. Test scores plummeted. A new principal implemented numerous reforms including adopting the principles of the Coalition for Essential Schools and other changes like block scheduling, the use of performance assessments, and breaking the school into a separate learning environments—one for 9th and 10th graders and one for 11th and 12th grade students. However, these reforms did not yield hoped-for achievement gains.

In 2001, after a brief small-school pilot with the 9th grade, the Gates Foundation provided a grant to split Manual’s 1,000 students and teaching staff into three semi-autonomous schools, each with its own thematic focus. The transition was rocky—challenges included an extremely short timeline; a sizable number of teachers (and students) who never bought into the reform model; limited principal and school autonomy; and segregation of non-English speaking students into a single school due to limitations in the teaching staff’s credentials. After four years of student attrition and continued poor student achievement, in 2006 the Denver Public School system closed Manual High School and its students were sent to other high schools in the district, although many were undeniably lost in the mix.³⁶ A community council identified a new principal and, starting with the 2007-08 school year, Manual was reborn with a new staff and 100 9th graders. This new school also shows great promise, but it will be many years before the success of this latest reform can be judged.

Sources: Author interviews; National Clearinghouse on Comprehensive School Reform, “The Manual Story”, accessed at http://www.elpueblointegral.org/The_Manual_Story.pdf; Paulson, Amanda “Three Schools, One Building, Many Reforms,” *Christian Science Monitor*, October 22nd, 2002.

³³ Gates, Bill. *Speech at the National Governors Association/Achieve Summit*, February 26, 2005, accessed August 2008 at <http://www.nga.org/cda/files/es05gates.pdf>

³⁴ Bill & Melinda Gates Foundation, *All Students College Ready: Findings from the Foundation’s Education Work, 2000-2006*, October 2006, accessed August 2008 at <http://inpathways.net/EducationFindings2000-2006v1.pdf>.

³⁵ *Ibid.*

³⁶For more on the Manual High School conversion, see *Breaking Up is Hard to Do: Lessons Learned from the Experiences of Manual High School*, Colorado Children’s Campaign, April 2005.

Colorado Commission on High School Improvement

As part of the Colorado Small Schools Initiative, in 2004 the Colorado Children's Campaign brought together a diverse group of policymakers, high school and university educators, philanthropists, and representatives from stakeholders groups across the state to focus attention on the tragic outcomes faced by young people in Colorado. The group reviewed the data on Colorado's high schools, as well as the research on what is known about improving and redesigning high schools and developed a set of recommendations that addressed teaching and learning, transitions to and from high school, expansion of student choice and alternatives, and the effective use of data. The Commission's recommendations included calling for more accurate calculation and reporting of graduation rates and the adoption of a P20 approach to education. Both of these recommendations were eventually adopted as state policy.

COLORADO-BASED FOUNDATIONS

In addition to the work of the Gates Foundation, local and state foundations continue to support high school reform efforts in Colorado. One new venture is the creation of a new non-profit, called "Get Smart Schools". This new schools support effort is a collaboration between three Denver-based funders - the Piton Foundation, the Donnell-Kay Foundation and the Daniels Fund - with the Colorado League of Charter Schools and several educational entities. The effort seeks to support the development of new schools in urban areas throughout the state by expanding on proven school models already working in Colorado, as well as importing additional successful school design models. Get Smart Schools seeks to provide support in three troublesome areas to new schools: leadership development, access to facilities and funding support in the planning and initial implementation stages of new school development. The schools would be focused on serving low-income, at-risk children.

These foundations are also supporting the development of the state's first charter management organization, Envision Schools Colorado. ESC will open six schools in the Denver-metro region under a single charter using a model developed by Envision Schools (California) that integrates arts and technology across the curriculum. Two schools have been approved to operate within Denver Public Schools (one will open in 2009, one in 2010) and all schools will enroll grades 6-12.



Moving Forward: Making Reform More Effective

Clearly, over the last 20 years much has been done in an attempt to improve the outputs of Colorado's education system. Some policies have attempted to address the demand side of public education in hopes that external pressure would promote system-wide improvements (public school choice, charter schools); others have sought to reform education by establishing benchmarks around what students should know and how we measure progress against those benchmarks (standards, testing, accountability systems, growth model). In general, it would be hard to argue against any of these individual reforms—they have all to a greater or lesser degree benefited the system in some way. The data, however, still tell the same sad story: We are not making the kind of progress that we need to make for young people in this state. And high schools are emblematic of this challenge.

Technical vs. Adaptive Reforms

Many if not all of the major state education reforms of the last 20 years—such as aligning standards and assessments, creating smaller schools or allowing the formation of charter schools, and improving data systems—are what can be called “technical” or “structural” changes.³⁷ That is, they impact the organization of districts, schools or classrooms or the technical specifications of subject matter or how we test learning—addressing problems that can be “fixed” through a known solution. The problem is that while these technical reforms may be absolutely necessary to support educational improvement, alone they have not been sufficient to make marked and lasting change in academic achievement and postsecondary outcomes. This is because for the most part the reforms address the broad context in which we educate children (class size or school size, for example), but they do not adequately address the types of changes—those directly related to how teachers teach and how students learn—that are needed to improve student performance.

These needed “adaptive” reforms—such as changes in student and teacher expectations and relationships, changes in school culture, changes in instruction—tend to be much more difficult to design and implement than technical reforms because they are rarely one-size-fits-all solutions. Adaptive reforms often involve changing long-held assumptions of teachers, administrators and policymakers and helping them learn new ways of instructing, managing and setting policy. Therefore, adaptive reforms often take longer to implement and, in some cases, take longer to see results than technical reforms. However, adaptive reforms require individuals to change their behaviors in ways that are likely to result in improved outcomes over a sustained period of time.

In short, these reforms “go deep” and facilitate the types of change that impact student learning and performance. Schools are successful when they operate within a coherent, supportive and meaningful set of policies and practices and when highly effective principals and teachers implement proven strategies that are geared toward improving student performance related to pre-determined standards and outcome measures. Successful school reform, then, requires implementation of an optimal blend of technical and adaptive policies.

Technical and adaptive reforms can be implemented at all levels—classroom, school, district and state—in the system. For example, a classroom reform might include changing the way desks are arranged in the classroom to promote teamwork among students (technical) or implementing a new research-based reading program (adaptive). A state policy reform might include establishing a school rating system based on test scores to identify poor-performing schools (technical) or training former principals to serve as “turnaround specialists” to provide intensive technical assistance to these poor-performing schools (adaptive).

³⁷ This analysis is based on the leadership work of Ron Heifetz and Marty Linsky, scholars at Harvard University. See, for example, *Leadership on the Line: Staying Alive Through the Dangers of Leading*, Harvard Business School Press, 2002. Their work has been applied to the corporate, government and nonprofit sectors.

Adaptive Reforms: Rigor, Relevance and Relationships

It can be useful to consider the types of adaptive reforms useful for high schools under a new “Three Rs” framework, developed by Tony Wagner at Harvard University’s Graduate School of Education and adopted by the Gates Foundation for use in their work with high schools. Adaptive reforms for high schools need to address the interdependent principles of rigor, relevance and relationships:

Rigor: Reforms that support high expectations for student achievement, the development of challenging coursework focused on the development of twentieth century skills (e.g., problem-solving, reasoning, communication, teamwork). Rigor often requires changes in teaching away from traditional lecture-driven approaches that emphasize more project-based lessons. Rigor is critical to success in college, work and active, informed citizenship.

Relevance: Reforms that support the development of schools and coursework that are geared towards student interests and needs, and helps students develop skills that are relevant in today’s world. Relevance builds on the talents and interests of high-school students to help keep them connected to school and to see their high-school education as integral to their future success.

Relationships: Reforms that create an environment and a culture where students are engaged in caring relationships with adults who are knowledgeable about what students are learning. High schools—particularly large comprehensive high schools — have lost individual connections with students. Caring relationships with adults help motivate students to achieve.

What about teachers and administrators?

Embedded in the notion of adaptive reforms and the “Three R’s” is the need for capable and talented school leadership and teaching staff. Research clearly shows that teachers and principals matter; effective teachers³⁸ and principals³⁹ can have sizable impacts on student achievement. Attracting and retaining good teachers and school administrators, and providing them with high-quality professional development opportunities is a critical overarching challenge for state policymakers, district leaders and school principals and it is particularly crucial at the high school level where the demands of both content knowledge and pedagogy peak.

The following “vignettes” provide some strong examples of successful attempts to blend both technical and adaptive reforms, together with changes in their approach to human capital, to improve high schools. These schools made big changes in an effort to address rigor, relevance and relationships.



³⁸Rivkin, Steven G., Hanushek, Eric A., and Kain, John F., “Teachers, Schools and Academic Achievement,” *Econometrica*, Vol. 73, No. 2 (March 2005), 417-458. McCaffrey, D.F.; Lockwood, J.R.; Koretz, D.; Louis, T.A. & Hamilton, L. “Models for the Value-Added Modeling of Teacher Effects.” *Journal of Educational and Behavioral Statistics*, 2004. Rockoff, J. E., “The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data,” *American Economic Review*, 94 (2), 247-252, 2004.

³⁹ Leithwood, K., K. Seashorshore Louis, S. Anderson, and K. Wahlstrom (2004). *How Leadership Influences Student Learning*. The Wallace Foundation.

Mapleton Public Schools: Districtwide Reform

In the late 1990s, circumstances in the Mapleton school district were not promising. The small school district in Northeast Denver was hemorrhaging students—particularly as they transitioned to high school. In fact, in 1988 the district closed one of its two high schools due to declining enrollment. Achievement was dismal and the graduation rate was extremely discouraging. Were kids dropping out of school altogether or were they transferring to schools in other districts? School leaders didn't really know, but when she came on board in 2001, school superintendent Charlotte Ciancio was determined to do something about it—something that would raise achievement and keep kids attending school in Mapleton. She knew that simply addressing the state of her high school was not the only solution, but it was where she planned to start.

Planning for Change

As in many parts of Colorado, the demographics in Mapleton had shifted over the course of the last decade. The former Italian immigrant farming community had become urban and largely Latino—the school district is 62 percent Hispanic and over half of its students are low-income. The district started by conducting surveys of district voters and held numerous community meetings to take the pulse of this changing community. What they learned was that they needed to do something different. In 2002, Ciancio convened a team of district and school staff, school board members, union leaders, parents, students and community members to identify a bold course of action for Mapleton schools. With support from the Gates Foundation through the Colorado Small Schools Initiative, this planning team set out to visit successful school sites and educational programs across the county. These visits served to galvanize the group and convinced them of two things: first, there was a clear and convincing moral imperative to improve their schools and, second, with a lot of hard work they could do it.

The Plan: A Portfolio of Small High Schools Lead by Empowered and Supported Principals

The team developed a phased plan to move from a single comprehensive high school to what eventually became six small high schools, each employing a distinct school design model, thematic focus and pedagogical style. The school design models would not be home-grown—each nationally disseminated model was chosen both for its merits as well as for the skill of the organization that would help implement the model and provide support to staff at the school site. The old notion of school assignment would be eliminated: each student would proactively select a school based on their interests. The new schools would be implemented slowly in order to gradually inculcate students and teachers with the school culture— all would start with a freshman class and add a class each subsequent year— and allow the school to work out the kinks. Teachers would also have a choice as to their placement, and would interview for positions at the new schools.

In addition to these school level changes, the district planned to make significant changes to district operating procedures. Ciancio was convinced that giving her principals charter-like freedoms, and at the same time flip-flopping the traditional top-down school district hierarchy so that the district staff were at the bottom and students were at the top, were key changes that would support the reform. The plan would require that her principals have authority to make decisions around hiring, school schedules and calendar, curriculum, and budgeting.

Why small schools?

The district chose a small schools approach for many reasons, including the fact that research pointed to the large size and impersonal nature of comprehensive high schools as a reason that students become disengaged and drop out of school. The smaller high schools would discourage anonymity and support personal connections between students and adults. Another important reason for choosing a small schools approach is that leadership knew that the district needed to improve instruction—and Ciancio believed that small schools would provide an opportunity to “open up” traditionally closed classroom doors and promote improvements in teaching. Much in the same way that small schools create a more personal atmosphere for students to learn, they also provide an environment that fosters a tight-knit, team-like approach to teaching that, in turn, promotes teacher development.

Bringing Everyone on Board

Ciancio knew that to move this forward, all the key stakeholders must be on board, including the Mapleton Education Association. Ciancio and union leadership, who were a part of the change Process from the beginning, haggled over the terms, but eventually agreed to contract modifications that allowed for more flexibility in teacher's work time, and eliminated some job security measures—all teachers interviewed for positions at the new schools, those not selected were not guaranteed jobs. The contract language emphasized that teachers and administrators work together as collaborative decisionmakers and allowed for many issues to be decided at the individual school-building level.

Changes in Practice and Culture

In addition to changing the size of schools and increasing the power of principals, each of these new school designs required changes in pedagogy and the proactive establishment of a school culture of high expectations. Most of the schools are “constructivist” and operate under the belief that students learn best through project-based and experiential approaches to learning. Not only did teachers have to learn the school design model, but many had to learn to teach and structure their classes in new ways. Professional development was critical and at least one school committed to 150 hours of teacher professional development on top of the regular academic year during the transitional phase. At least one of the schools has weekly professional development time built into the school schedule—school starts late one day per week.

In addition, teaching staff had to adjust to having more regular observers in their classroom—part of the new culture was to really open up classrooms to outside observations – district student support teams visit every classroom in every school monthly to monitor and provide feedback.

Results

The jury is still out on whether this district-wide reform is going to improve student achievement. Many leading indicators are positive. This year, Mapleton graduated its largest class in ten years. This year's seniors saw the highest ACT scores since the test was mandated in 2002. Ninety-two percent of this year's seniors applied to college and 90 percent of those students were accepted. Grade-to-grade retention is up at all levels—including retention from elementary to middle school, a place where they historically had huge losses. Achievement scores are still identified as “low” according to the state accountability system—in fact, CSAP scores have been dropping steadily over time and the small schools implementation has not reversed the trend. This is disappointing, of course, but school and district leadership are not surprised—there has been a huge learning curve for the entire district and it takes time for students and staff to learn new ways of doing things and to gauge how the changes impact achievement. The district is looking forward to analyzing the district's results using the state's new Growth Model data system (available in the fall of 2008). They anticipate that this data may paint a more positive picture of student progress than simply looking at proficiency.

Mapleton represents an ambitious and impressive attempt at large-scale high-school reform. While reformers have achieved “islands of success” in reforming individual high schools throughout the country, few, if any, districts have attempted anything close to the scale and scope of Mapleton's reinvention. Critics argue that Mapleton's reforms, done within the district structure, have not gone far enough to truly achieve success. Only time will tell if Mapleton's reinvention will achieve its goal of truly transforming the district and dramatically improving results for its students.

Sources: July 16, 2008 interview, Charlotte Ciancio, Superintendent and Damon Brown, Communications Director, Mapleton Public Schools. Davidson, Jill, “The Stars Aligned: A Study of System Change in Colorado's Mapleton Public Schools,” *Horace*, Summer 2005, Vol. 21, No.3. ; Choices for Learning, Skyview High Schools: Small by Design, General Overview, document prepared by Public Schools, 2003.

Denver School of Science Technology: Charter School With Results

The Denver School of Science and Technology is a charter school that is beating the odds. In 2001, Governor Bill Owens tapped David Greenberg, a Denver businessman and education reformer, to bring together a group to develop a plan for a high school focused on math and science. The Bill & Melinda Gates Foundation provided a challenge grant and the founders then raised funds, including \$5 million from Denver Public Schools, to support start-up of the school and construction of a new high-tech facility in a redeveloping section of the city. However, this small school of 425 students, which opened in 2004, is not selective—it accepts applicants using a lottery system; students do not “test in” to the school. The school’s charter requires that it accept a minimum of 40 percent low-income students. The current student body is 60 percent Hispanic or black, and 45 percent low income.

DSST is one of the top performing schools in the district and in the state. Its most recent available test score data show DSST students outperform the state average by a wide margin—Hispanic students average 70 percent proficient across reading, writing and math, compared to a statewide average of 26 percent. Black students achieved proficiency at nearly twice the rate of those across the state. Every student in its first graduating class of 2008 is going on to a four-year college. However, things are not perfect—only 79 of the school’s original 129 9th graders received a diploma this year—a mobility rate the school is seeking to improve.

Charter School Flexibility

DSST is a Denver Public Schools charter school which means it has freedom to control its own budget, curriculum and staffing. DSST’s founding Head of School, Bill Kurtz, receives 97 percent of the district’s per pupil allowance and can allocate those funds as he sees fit. He also has total control over curriculum and freedom from union work rules. He makes all hiring and firing decisions and teachers and administrators operate on one-year contracts. Collectively, these freedoms allow DSST to be flexible, to make changes as soon as a problem, even a potential problem, is identified with the curriculum, with school policy, or with a particular student—and Kurtz says they make changes all the time. However, these types of freedoms do not in and of themselves make DSST successful—plenty of schools with this same level of control aren’t seeing the kind of academic success DSST has achieved.



School Culture and Classroom Practice

Bill Kurtz points to the school's mission and vision that provide staff with extreme clarity of purpose and direction, along with a set of values that guide the manner in which they pursue them, as critical to the school's success. The school expects 100 percent of students to meet state standards in math, science and English. One hundred percent of students will be accepted into college and will have the skills to succeed there. Staff adhere to a notion of holistic accountability that accepts responsibility for student failure and is constantly seeking to make improvements in practice in order to make all students successful. "If a student is not successful, we have failed." Struggling students are provided with an intense level of support, including an intensive mandatory summer program before ninth grade, support seminars for those behind in English or math, and significant extra class time in core subject areas.

This notion of high expectations—both academic and personal—is critical to DSST's success according to Kurtz, and is an explicit and integral part of the school's approach. Students, their families, and staff must commit to the school's core values—respect, responsibility, curiosity, integrity, doing your best, and courage. The first two days of school are spent in a community culture building retreat, and the school intentionally builds in structures that operate throughout the school day and school year that reinforce the core values—including daily mandatory all-school meetings and twice-weekly small-group meetings with a faculty advisor.

In addition to its focus on positive school culture, DSST continually evaluates and revamps instructional practice to improve student learning. Kurtz emphasizes that they are a learning organization. Data drive the work at DSST, and as time goes on they are using data to improve practice more and more. For example, school staff use a standards-tracking system to monitor student performance every day—when a student masters a standard concept he can move on, if not the student must continue working on it in after-school tutoring or re-teach sessions. And they use these data to make changes. For example, before the beginning of this coming school year, DSST staff met for three days to revamp their instructional approach. Kurtz emphasized that one research finding that is unassailable is that everyone learns differently. After a series of visits to other high-performing schools and their own research, staff met to revamp the curriculum and their classroom strategies to ensure a balanced pedagogical approach incorporating "hands-on" activities, fluency work, "curriculum spiraling", and other more traditional approaches to learning. While the school has had immense success, staff know they can do better for all students. "This is incredibly hard work," says Kurtz.

Rigor, Relevance, Relationships

DSST was in its formative stages slightly before the new high school "three R's" of rigor, relevance and relationships were put forth, but the school's success is founded on those principles: it supports students in a rigorous curriculum and holds them to exceedingly high expectations; the curriculum strives both to be relevant in a general way, but also to continuously make connections for kids—many of the part-time faculty work in industry and can provide real-life links for kids; and relationships and community are a key tenet of the school's culture. No one falls through the cracks; everyone knows your name.

Not all charter schools have been as successful as DSST—but DSST shows that it is possible for a non-selective school with a high percentage of low-income students to become one of the top-performing high schools in the state. Replicating this success at scale requires implementation of both technical reforms (small school, budgetary control, human resources freedoms), together with "adaptive" reforms (relentless focus on positive school culture and high expectations, clarity and agreement on mission and vision, continuous improvement mindset, team approach). Together, these two types of reforms promise to make the difference between success and failure.

Sources: August 11, 2008 interview, Bill Kurtz, principal Denver School of Science and Technology; Denver School of Science and Technology: A High School that Works, Colorado Children's Campaign, February 2006; Haley, Dan "Making High School Better: High Schools Need Change, The Denver Post, February 20, 2005. Griego, Tina "School Offers Model for Success that Could Change DPS Culture," Rocky Mountain News, August 29, 2005.

Lessons Learned from Two Reform Stories

Mapleton Public Schools and the Denver School of Science and Technology (DSST) are both attempting to blend technical and adaptive reforms. Both serve low-income, at-risk students. One, Mapleton Public Schools, has attempted to change itself by creating smaller schools, adopting proven school design models, and by providing its principals with charter-like freedoms and authority. After four years, the Mapleton redesign still has not made gains in student CSAP performance, but there are some leading measures that indicate that improvement may be forthcoming. The other, DSST, one of the top-performing schools in the state, is a charter school that serves 60 percent minority and 45 percent low-income students. DSST developed its own instructional design, reviews data frequently in order to make needed instructional changes instruction, and is relentlessly focused on creating a positive school culture. While the specific school design models implemented in Mapleton and DSST differ, it is unlikely they are the reason for the differences in outcomes. Mapleton is attempting change at scale and within the district system—this provides a different, and perhaps greater, set of challenges than the creation of single new school. While DSST is not a selective school, attending the school requires that a student and family make a pro-active choice to opt out of their home-school, and this may lead to a student body that is more motivated to achieve. Mapleton's scores represent all students in the system—the motivated and the more typical.

What we can glean from the experiences of these two examples is that adaptive reforms that change the way people approach their work takes time, focus and constant vigilance. And especially when change is being put forth from within the school system, sufficient time must be allowed so that mid-course corrections can be made to allow the effort to bear fruit. This is a challenge for the short time horizons of policymakers who do not typically provide the time necessary to see changes in achievement. Although the jury is still out on the impact of Mapleton's district-wide re-design, it is clear that this type of reform can be supported at-scale through district-wide approaches. It just may take more time and effort—both to get started (significant time and energy was spent at Mapleton to get stakeholder buy-in), but also to implement. DSST has demonstrated clearly that at-risk students can achieve in a program that constantly assesses student learning and provides individualized instruction in a culture of high expectations. It can be done – the challenge is figuring out how to do it at-scale.

Technical reforms are also important in both places. Principals in Mapleton and at DSST pointed to more freedom and control over budget, human resources and scheduling, as critical, although DSST, as a charter school, has more freedom and discretion than principals in Mapleton do. It is unclear at this point whether this is a source of some of the differences in their achievement outcomes to date. The superintendent in Mapleton shared that principals need time and support and with experience are given more freedoms than they are provided initially.

And lastly, it is clear that in both places leadership matters. Commitment by and talent of leaders to move a set of people from one place to another is vital to this work and hard to legislate or mass produce.



Moving Forward: Developing Reforms with Results

The challenge remains. In order to make lasting and meaningful change at the high school level—in more than just isolated cases—we need to do something dramatically different in Colorado. More of the same—or simply tweaking what we have—will not suffice. We need to implement policies that successfully blend both technical and adaptive reforms.

How do we ensure that happens? It is an exceedingly complex task. This report does not seek to make specific policy recommendations. Rather it proposes a set of questions for policymakers to ask when considering policy proposals. Careful consideration of these questions will go a long way toward helping ensure that we develop policies that don't focus on technical problems to the exclusion of the trickier adaptive challenges.

THE POLICY CONTEXT

- *Is the policy targeted to key state and local education priorities that are geared toward improving outcomes for children and youth, especially those most at risk of dropping out? When funds are limited, as they always are, public resources must be laser-beam focused on the key priorities for high schools—improving overall achievement, reducing achievement gaps, reducing the dropout rate, and preparing kids for post-secondary success.*
- *Does the policy appropriately complement existing state and local policies? If not, does it seek to address areas of non-alignment or duplication? It is important that policymaking be coherent and aligned—particularly at the state and local levels—so new policies do not contradict old policies. This is not to say that the goal of policymaking is to perfectly align with old policies. There are times, of course, when older policies are no longer useful or for other reasons need to be modified or discarded. Other times, state policymakers propose legislation because of a need or problem that is not being adequately addressed under current local policies. When older policies are not reviewed or addressed as new ones are added, it can create extreme disconnects and confusion in the system and overly burden those bearing the brunt of implementation.*

The Use of Commissions and Other Study Groups to Promote Change

Colorado's leaders regularly convene groups of elected and appointed leaders and other stakeholders to discuss timely issues and major challenges. These groups come in the form of interim legislative committees, study groups, task forces, and commissions. They have been convened both by government officials or other leaders such as philanthropists and non-profit organizations. This approach has strengths and weaknesses. The strengths include the ability to:

- Focus public attention on a new or emerging problem; OR keep an issue on the policy agenda, even if there is a lack of political will or resources to act at the time;
- Build consensus around common challenges and promote deeper understanding of a set of potential solutions;
- Broaden and strengthen coalitions for a policy change.

Such groups also share common challenges to their work. These include an inability to ensure follow-up by policymaking bodies, or to ensure appropriate implementation; and providing a premature sense of accomplishment that “action has been taken” when recommendations are released, even when long-term follow-up is necessary. Moreover, such groups can potentially delay action on a challenge because of the political nature of the commission process.

Nonetheless, such commissions can be powerful and effective strategy. When such new commissions are proposed, leaders would be well-advised to ask the following:

- **Do we know what the problem is?** Is there a broad understanding of the challenges we face already or is this issue or challenge not understood or on the policy agenda?
- **Do we know what the policy solution is?** Is there a shared understanding of what we could do in policy to act on it now?
- **If so, do we need a commission?** If there is already agreement on a problem and a solution, can we act now without a commission?
- **If so, how do we monitor subsequent action?** Are there mechanisms and people or entities charged with monitoring progress or ensuring follow-up action on this agenda?

- *Is the policy based on research on what works in high school education and/or the experience of very successful schools and educators?* There is a sizable body of research on what works in high schools, and in Colorado we have successful models to learn from. We need to learn from these successes and develop methods to translate and replicate that success without imposing “one-size-fits-all” solutions.

LOCAL FLEXIBILITY AND NEEDS

- *Does the policy promote local flexibility in experimenting with solutions while ensuring appropriate accountability for results?* We know that top-down proscribed solutions are resented, often implemented erratically, and seldom achieve the desired results—particularly for high schools. Thoughtful and well-crafted solutions tailored to local needs have the potential for much greater success. We need policies that not only allow for local flexibility, we need policies that promote and provide incentives for local solutions. And the lessons from these locally-developed solutions need to be systematically shared to support replication and save others from reinventing the wheel (or making the same mistakes).
- *Does the policy contribute to building the capacity of local administrators and educators in delivering high quality education and support services?* As a state, Colorado has worked hard to implement and improve its system of school and district accountability. Poorly performing schools are clearly identified and condemned, and state policies seem to assume that this is all schools need to jumpstart academic improvement. However, we know that chronically low- performing schools need assistance. Colorado needs a set of policies that systematically seeks to build the capacity of educators and administrators. Again, these policies must be implemented in a way that provides essential flexibility so that capacity-building efforts can be targeted and tailored to local needs.

RESOURCES

- *Does the policy provide the resources necessary to implement required practices, services, and systems?* Any reform needs to be matched with sufficient resources and time to allow proper implementation. It is easy to pass strong legislation and then wonder why we didn’t achieve results when we failed to provide sufficient funds to properly implement it. And while we need to hold ourselves accountable for results, we need to allow time for reforms to take hold—particularly reforms requiring changes in school and classroom practice—before judging policy effectiveness. Adaptive reforms are complex and require a comparatively longer time to implement and to show results than typical reforms.

The questions should not serve as a litmus test for education policy initiatives. Not every policy will receive an affirmative answer for each of these questions, but the questions should serve as a framework of considerations to guide the development of a solid policy agenda for high schools.

Making substantial improvements in the outcomes for high school students, particularly for our most challenged populations, is exceptionally difficult and will require sustained hard work on the part of educators across the state. None of the potential solutions is easy or obvious. However, we cannot continue to stand by and assume that either our high schools will fix themselves, once the rest of the system is working better, or that high schools are unfixable. The future of Colorado depends on it.





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