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ABC

Weighted Student Formula Yearbook

Denver

by Katie Furtick & Lisa Snell

Denver Public School District

Program Name: Student-Based Budgeting
Implementation: 2007–2008 School Year
Program Type: District-Wide Program
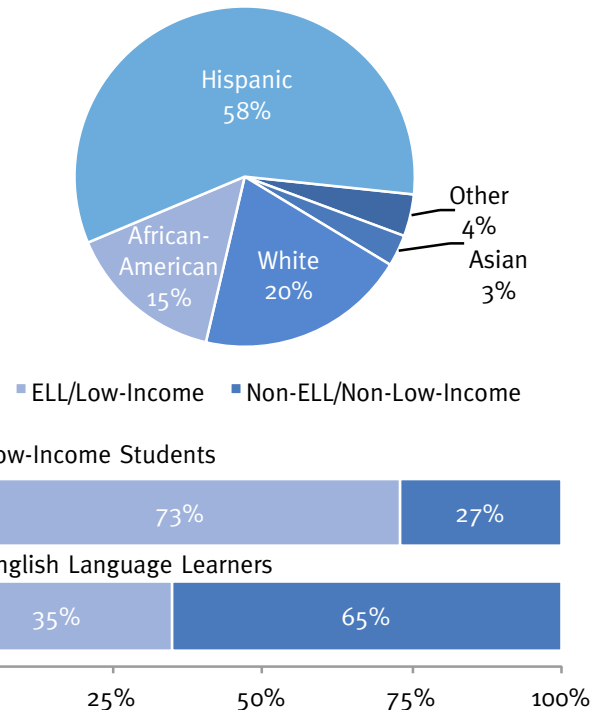**Legal Authorization:** School Board Policy

Overall Grade: **C**

Category	Grade	Rank*
Overall Grade **	C	11
Principal Autonomy	B	5
School Empowerment Benchmarks	A	6
2011 Proficiency Rates	C-	11
Proficiency Rate Improvement	B+	4
Expected Proficiency vs. Actual	B-	7
Expected Proficiency Improvement	B	5
2011 Graduation Rates	C	6
2011 Achievement Gaps	F	14
Achievement Gap Improvement	F	13
Achievement Gap Closures:		
■ *Internal District*	F	14
■ *Internal District vs. Internal State*	F	14
■ *External Achievement Gaps*	C	8

* Tied with Milwaukee for "2011 Graduation Rates." Tied with Baltimore, Hartford, Boston, Houston, Minneapolis, and Newark for "School Empowerment Benchmarks."
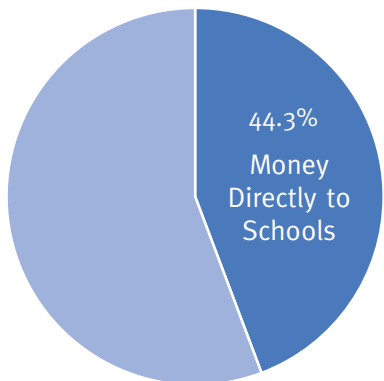
** Overall grades and ranks may not equal the average of individual grades and ranks because categories are weighted differently to reflect their importance.

Demographics

Hispanic 58%
African-American 15%
White 20%
Other 4%
Asian 3%

■ ELL/Low-Income ■ Non-ELL/Non-Low-Income

Low-Income Students: 73% | 27%
English Language Learners: 35% | 65%

Source: DPS School Year 2012–2013 Facts and Figures

2012–2013 Principal Autonomy

44.3% Money Directly to Schools

Source: DPS FY 2012–2013 Adopted Budget

School Empowerment Benchmarks

School budgets based on students not staffing	Yes
Charge schools actual versus average salaries	No
School choice and open enrollment policies	Yes
Principal autonomy over budgets	Yes
Principal autonomy over hiring	Yes
Principal training and school capacity building	Yes
Published transparent school-level budgets	Yes
Published transparent school-level outcomes	Yes
Explicit accountability goals	Yes
Collective bargaining relief, flat contracts, etc.	Yes

DPS Met 9 out of 10 School Empowerment Benchmarks

1. Overview of Denver's Weighted Student Formula Program

Denver Public Schools (DPS) has 176 schools, including 41 charter schools with 84,424 students in 2012–2013. The student demographics are 58 percent Hispanic, 15 percent African-American, 20 percent White, and 3 percent Asian, with 73 percent of students qualifying for the free or reduced lunch program and 35 percent English language learners.[1]

Under the leadership of former Superintendent Michael Bennet, DPS has pursued one of the most comprehensive school reform agendas in the United States. As the Council of Great City Schools reported in a study of Denver schools, "former Superintendent Bennet, his excellent staff, and a focused school board devoted considerable energy to developing a grand theory of action that redefines the school district's instructional program, its human capital needs, and its financial resources in ways that are both innovative and promising."[2]

In 2007 Superintendent Bennet moved DPS away from the old system of allocating resources centrally (for every 25 students, a school gets 1 teacher) to one where schools get dollars and flexibility on how they want to spend those dollars. Schools can decide how they want to prioritize their dollars on key staffing decisions, including teachers, intervention services, social workers, librarians, etc., subject to requirements of state, federal and local laws (that mandate how certain categorical dollars are spent) and to the provisions of the district's collective bargaining agreements.

District leadership in Denver described the following reasons for moving to a student-based budgeting approach to allocating budget resources to schools:[3]

- To provide transparency, as the previous staffing model method was very complex and difficult to explain.
- To demonstrate how resources follow the students.
- To eliminate the "stair-step effect" of the past in which resources were allocated based on strict student ratios or ranges of students, resulting in one less student possibly meaning a teacher reduction.
- To make it easier to compare the amount of resources allocated between schools or for a given school from year to year.

Denver began exploring student-based budgeting in the 2007–2008 school year. For 2007–08, schools were awarded dollars under the staffing formula but were told what their budgets would have looked like under the student-based budgeting model.[4] In 2008–2009 Denver fully implemented a student-based budgeting model.

In January 2009 Superintendent Bennet left Denver to become Colorado's newest U.S. Senator. He was replaced by his Chief Operating Officer Tom Boasberg, whose priority is to continue school empowerment through the student-based budgeting model. Boasberg's priorities during his tenure include attracting and keeping qualified teachers, decentralizing the district to give schools more power, and providing financial stability and transparency.[5]

In a March 2009 interview with the *Denver North News*, Superintendent Boasberg explained how the district will continue to give schools more autonomy.[6] He said Denver schools need "much more a model where schools have decision-making power and authority, and that is coupled with accountability. Accountability without autonomy is compulsion," arguing that incentives and interventions can create success within a framework of more autonomy for individual schools.

In the 2009 budget, Boasberg pushed for more financial decision-making and authority to school leaders. For example, principals gained more authority over dollars that are used for mental health services. The district used to allocate mental health services centrally to schools and say, each school gets two days of a school psychologist or two days of a social worker. Now the district gives principals money and they can decide how they want to spend that money on social workers or psychologists or nurses based on their particular needs.

This sketch of the Denver Public Schools is primarily concerned with how Denver revamped its school financing system into a student-based budgeting system that helps support the district's other systematic reforms by sending resources to the school level and giving principals discretion over those resources.

2. How Does Denver's Student-Based Budgeting Process Work?

In the 2007–08 school year, DPS began exploring student-based budgeting (SBB), which funds schools based on the needs of the students attending those schools. In an SBB district, funds follow the individual student. SBB replaces DPS's previous budgeting method, in which funds were based on staffing allocations.

Student-based budgeting uses a base cost figure and additional adjustments for students with additional needs. The base cost is the amount of money that a school receives for each student enrolled at that school, regardless of need. The adjustments, often in the form of weights (added amounts of money), provide additional funding based upon the needs of the students in that school.

In Denver, schools were given flexibility in the use of allocations for teachers, interventions, paraprofessionals, librarians and other staff. The new budgeting allocations increased funds to most schools starting in 2008–2009 by 5 to 11 percent.

Denver includes both per-pupil funding and program-specific funding in the student-based budgeting allocations, shown in Table 1.[7]

Table 1: Denver Public Schools' 2012 – 2013 Student-Based Budgeting Allocations

⬭ Base Allocation	**K Only** $1,936 0.5	**K –12th** $3,872 1.00	**Supplemental – Center Programs *** **Elem.** $12 <0.01		**Middle** $13 <0.01	**High/Alt.** $11 <0.01
$ Free and Reduced Lunch	**Elementary (K–8th)** $461 0.119		**Secondary** $496 0.128			
💬 English Language Learners **	**CELA 1, 2, 3 (K–12th)** $400 0.103					
A+ Gifted and Talented ***	**K–8th** $120 0.03					
✏ Student Literacy Development	**K–12th (K=0.5)** $69 0.17					
📝 Performance	**Maintain** $65 0.016	**Growth to SPF Growth Category** **Orange** $100 ---	**Yellow** $105 ---		**Green** $110 ---	**Blue** $115 ---
📚 Additional Weights	**Technology** $22 <0.01	**Elementary Arts** $7 <0.01	**Textbooks** $10 <0.01		**Library Resources** $6 <0.01	
🔤 Early Childhood Education	**Half Day ECE** $48.25 0.12	**Full Day ECE** $96.50 0.024				
🖍 Kindergarten Supplies	$48.25 0.012					
💲 State/Federal Funding	**Title I Free or Reduced Lunch ****** 66–89.9% $400 0.103	90–100% $450 0.116	**Title I Parental Involvement** $7.96 <0.01		**Title II Professional Development** $38 <0.01	
🍎 Guest Teacher	$52 0.013					

* Supplemental funding for schools with center programs.
** DPS also allocates annual ELL paraprofessional hours per expected student enrollment.
*** Per pupil allotment is in addition to 0.25 FTE allocation.
**** Funding depends on the percentage of students that qualify for Title I free or reduced lunch.

Denver's "Performance Weight" acts as an incentive tied directly to the district's accountability system that offers a financial incentive for academic growth and allows schools to have spending discretion over those earned resources. Schools receive a maintenance factor for maintaining high achievement or a growth bonus for moving up each category in the school performance framework.

3. How Much Autonomy Do Denver Public Schools Enjoy?

There are two ways to view school-level autonomy. First, autonomy at the school site can be evaluated by budget discretion—what proportion of funds is sent to the schools versus retained at the district level? Second, one can evaluate by planning discretion—how much control over staffing and programmatic offerings do principals have?

The letter grade given to school districts in the *Weighted Student Formula Yearbook* indicating the level of autonomy over school budgets is based on the percentage of yearly operating funds that are allocated to the school level. The higher the percentage of operating funds allocated to the school level, the greater budget autonomy the principal enjoys.[8]

Denver public schools received 44.3 percent of funds through student-based budgeting allocations. This is a large percentage of budget autonomy relative to other school districts highlighted in the *Weighted Student Formula Yearbook*, giving DPS a "B" in principal autonomy.

Also, Denver principals have more discretion over hiring staff than most urban districts. The teachers do not change teaching jobs based on seniority or "bumping rights," and Denver has an "open market" teacher hiring process where principals can interview multiple candidates and make decisions about which teachers will best fit with their schools.[9]

4. How Does DPS Support Principals?

Denver Public Schools has a "principal's institute" that is attended by principals, assistant principals and school-level facilitators that provides support for implementing instructional strategies. It features interactive activities on such practical issues as core instruction, standards-based progress reports, budget management reports, integration with district operations and business services, HR procedures, research findings, special education, language acquisition, adolescent literacy, law enforcement requirements, and other topics. The district also offers a principal-preparation program that gives aspiring leaders support from a mentor principal and intensive residency-based leadership development opportunities alongside that mentor.

In addition, Denver Public Schools offers every principal a "financial partner" from the budget office, in-person budget training every January, a detailed Budget Guidance Manual, as well as detailed video instruction on how to develop the budget and complete the school budget forms. These manuals and guidance videos are extremely comprehensive and available at any time to support principals in completing the budget process, and demonstrate how investment in a thorough set of budget development tools can save time and make the budget process more streamlined and efficient.[10]

5. The Site-Based Management of Denver's Public Schools

In Denver the Collaborative School Committee (CSC) is the decision-making body for the school, with representation from parents, community, faculty, administrators, and classified staff.[11] According to board policy, the purposes and scope of the collaborative school committee are:

- To enhance student achievement and school climate by engaging the school community in collaborative efforts supporting the school and district's goals;
- To provide strategic direction in support of the school's mission and vision as stated in the "school improvement plan" (SIP). The SIP, with the school's program design, should serve as the strategic plan for the school, and
- To comply with state and federal laws and regulations of the Colorado Department of Education.

6. School Choice Component of Denver's Weighted Student Formula Program

In Denver the link to the school enrollment process is simply titled "School Choice: Selecting a School."[12] Students may enroll in any school in the district, regardless of where they live, so long as there is space available and they meet the entrance requirements. Parents can research Denver schools through the School Choice Enrollment Guide or by attending school fairs and individual school visits. The district also runs a new SchoolMatch website where parents can enter desired school features and get a list of matching schools. For example you could search for "schools that serve 6th grade, meet expectations on the School Performance Framework, offer world languages, and after school programming." SchoolMatch will then generate a list of schools and the "match strength" of each school up to 100 percent.

The district's school choice process allows parents to prioritize five school preferences and matches these preferences with each school's admission priorities and available space. Oversubscribed schools select students using a lottery process. Denver uses a "one-application" process where all schools are on the same timelines and include most schools on the application including district charter schools.

7. Initiatives to Increase School-Level Accountability in Denver

In 2008, Denver Public Schools launched a "school performance framework," (SPF) which measures the progress of actual students against themselves and against peers from the entire state of Colorado to make sure that DPS is moving all of its students forward.

The SPF provides a comprehensive picture of the impact schools have on their students from year to year. In addition to showing how much students benefit from their schools, the SPF shows how schools differ in their ability to educate their students, and it allows the district to highlight and share best practices among schools and outline individual roadmaps for identifying areas where schools can grow and improve. The aim of the SPF is to improve overall student learning and achievement, and it will be used to accredit all DPS schools with the state of Colorado.

The SPF's review of school performance is presented in the form of a scorecard and takes into account a broad range of measures, including a school's actual Adequate Yearly Progress (AYP) as determined by the federal benchmarks, the state School Accountability Report (SAR) ratings, and CSAP test scores in a given year. But the SPF also factors in demonstrated improvement from one year to the next (measure of growth). About 60 percent of the framework is based on students' progress over time. While the SPF evaluates AYP, SAR and CSAP data, it does not replace those measures. The federal government will continue to issue AYP, and the state will continue to issue SAR reports annually.

Every DPS school, except those in their first year of operation, is assigned one of the following accreditation ratings every September using data collected during the previous school year: Distinguished, Meets Expectations, Accredited on Watch, or Accredited on Probation. Ratings affect how much support schools receive, corrective action taken, and compensation earned by principals, assistant principals and teachers.

The number of Denver public schools that are meeting or exceeding standards continues to increase, with 10 more schools in 2012 rated as Distinguished (Blue) or Meets Expectations (Green). In the last two years the number of Blue and Green schools in DPS has increased from 60 to 83; reflecting the fact that in these two years DPS has seen more academic growth than any medium or large school district in the state. The results of the 2012 SPF show 58 percent of Denver schools are rated Blue or Green—a 13-percentage-point increase over the past two years.[13]

As part of the accountability framework, DPS operates a groundbreaking teacher pay system called ProComp, along with a principal compensation system that rewards improved student achievement and commitments to work in hard-to-serve schools and hard-to-staff assignments.

ProComp is a nine-year bargained agreement between the Denver Classroom Teachers Association and Denver Public Schools that is designed to link teacher compensation more directly with the mission and goals of DPS and DCTA.[14]

The system accomplishes the following goals:

- Rewards and recognizes teachers for meeting and exceeding expectations;
- Links compensation more closely with instructional outcomes for students, and
- Enables the district to attract and retain the most qualified and effective teachers by offering uncapped annual earnings in a fair system.

ProComp has four components that allow teachers to build earnings through nine elements:

- *Knowledge and Skills* - Teachers will earn compensation for acquiring and demonstrating knowledge and skills by completing annual professional development units, through earning additional graduate degrees and national certificates, and may be reimbursed up to $1,000 annually, $4,000 lifetime for tuition and repayment of student loans.
- *Professional Evaluation* - Teachers will be recognized for their classroom skill by receiving salary increases every three years for satisfactory evaluations.
- *Student Growth* - Teachers will be rewarded for the academic growth of their students. They can earn compensation for meeting annual objectives, for exceeding CSAP growth goals and for working in a school judged distinguished based on academic gains and other factors.
- *Market Incentives* - Bonuses can assist the district and schools in meeting specific needs. Teachers in hard-to-serve schools—those faced with academic challenges—can earn annual bonuses. Additional bonuses will be available to those filling hard-to-staff positions—assignments that historically have shortages of qualified applicants.

Finally, Denver Public Schools uses school closure as an accountability mechanism. In 2007, the school board approved the closing of eight schools that were under-enrolled and low-performing. The board projected that the realignment of students from these schools to higher performing schools would achieve projected yearly operating savings of $3.5 million. Those resources are being used to improve the education of students who will be affected by the school closures, deliver additional resources to under-performing schools, and create funding opportunities for new schools and new programs.

In addition to the standard per-pupil revenue that will follow students to their new schools, the district has reinvested $2 million, or 60 percent of the savings from school closures, in the schools of reassignment.

8. Performance Outcomes in Denver Public Schools

While compiling this *Weighted Student Formula Yearbook*, Reason Foundation conducted an analysis to determine how the school districts that have adopted a Weighted Student Formula are performing relative to other districts in their state, and relative to each other.

Reason's analysis grades 10 performance metrics. Scores are determined by comparing the school district in question—in this case Denver—with other school districts in the same state (Colorado, in this instance), and sorting them into a decile ranking. Based on the school district's decile rank within its own state, the analysis then compares it with the other districts studied in this *Weighted Student Formula Yearbook*. Finally, the analysis assigns the studied school districts a grade based on how they measure up against one another. This analysis also grades and ranks studied school districts on two other measures: the number of school empowerment benchmarks the district has reached, and the degree of autonomy principals have over school budgets. In determining the grades on these two measures, districts are compared only with the other districts covered in this *Yearbook*. A detailed explanation of the methodology used to determine performance metrics and grading can be found in the methodology chapter of the *Weighted Student Formula Yearbook*.

Student proficiency rates, as determined by standardized state tests, and student enrollment data were used to calculate the following:

- 2011 proficiency rates;
- Improvement (average change) in proficiency rates from 2008 to 2011;
- Expected versus actual proficiency rates;
- Improvement in expected proficiency from 2008 to 2011;
- Achievement gap, and
- Each of three achievement gap closure metrics.

Denver Public School District proficiency rate data were obtained from the Broad Prize for Urban Education 2012 District Data Reports.[15] Elementary and middle school student proficiency rates in reading, mathematics and science derive from Colorado Student Assessment Program (CSAP) results. In this analysis, 2012 student achievement is mentioned but is not compared to other school districts in Colorado and in the *Weighted Student Formula Yearbook* because many school districts did not have 2012 data available at the time of writing.

Graduation rates were collected from Data.gov based on adjusted cohort graduation rates at the school level for school year 2010–11 (most recent data available).[16] Four-year adjusted cohort graduation rates are calculated by state education agencies in accordance with U.S. Department of Education regulations on

ESEA, Title I, published in 2008. Adjusted cohort graduation rates are reported for each school as a whole and for key sub-groups of students.

The grade given for school empowerment is based on 10 benchmarks determined to be best practices within existing weighted student formula programs, as well as the recommendations of other studies of student-based budgeting initiatives.

The following sections expand upon each graded category by highlighting areas in which Denver performed exceptionally well relative to other districts in Colorado, and to other districts in the *Weighted Student Formula Yearbook*. It also discusses areas in which Denver has fallen behind or could use improvement.

Student Achievement

Denver Public Schools students had below average 2011 proficiency rates in mathematics, reading and science relative to other Colorado school districts, but trends in proficiency rate improvement since 2008 are some of the most impressive in the state. In 2012, the percentage of DPS third-graders

Category	Grade
2011 Proficiency Rates	C-
Proficiency Rate Improvement	B+
Expected Proficiency vs. Actual	B-
Expected Proficiency Improvement	B
Graduation Rates	C

proficient or advanced in reading climbed by two points from 2011, contributing to a 10-percentage point increase since 2010. This means that about 800 more third-graders in DPS schools are reading at or above grade level than there were three years ago.[17] Further, the percentage of Denver third-graders who scored proficient or advanced on the reading portion of this year's Transitional Colorado Assessment Program (TCAP) increased from 59 percent to 61 percent, the highest level yet recorded for Denver since the introduction of the state reading assessments.

Disaggregated by student group, in 2011 DPS White students showed the highest performance, with above-average proficiency rates relative to the rest of Colorado. Among this student demographic, DPS proficiency rates at all school levels and in all subjects were among at least the top 30 percent of all school districts in Colorado. In particular, DPS White middle and high school students' average proficiency rates were among the top 20 percent of all districts in 2011. To add to the school district's 2011 success, over time White students' average proficiency rates have been some of the fastest improving proficiency rates in the state.

Non-low-income students' average 2011 proficiency rates in these subjects were average to below average, relative to other Colorado school districts. However from 2008 to 2011, this group of students also showed some of the fastest improving proficiency rates in the state. Among Denver Public Schools' disadvantaged student groups, 2011 average proficiency rates were below to well-below average, but more importantly, show a similar upward trend in improvement over time as advantaged student groups.

Denver Public Schools students posted the highest Median Growth Percentile scores among Colorado's 20 largest school districts on the 2012 Transitional Colorado Assessment Program.[18] DPS also posted proficiency gains in the four core subjects that outpaced those of the rest of the state. The Median Growth Percentile measures year-to-year academic growth compared to peer students across the state, and the average score is 50. DPS students posted scores of 54 in reading, 53 in math, and 57 in writing. Prior to the start of the Denver Plan reform program DPS had the lowest year-on-year academic growth of any major district in the state. Since then, DPS has consistently gained ground on the rest of the state in percentage of students performing at or above grade level; Denver schools have become the fastest-growing major district in the state in terms of year-on-year academic growth.

Figure 1: Proficiency Rate Improvement Hispanic Middle School Students

Source: Broad Prize 2012 District Data Reports

In particular, Denver Public Schools' improvement in reading and mathematics proficiency rates among elementary and middle school students is among the top 30 percent of fastest improving Colorado school districts. DPS high school students are also quickly improving proficiency rates, with their improvement being among the top 40 percent of Colorado districts.
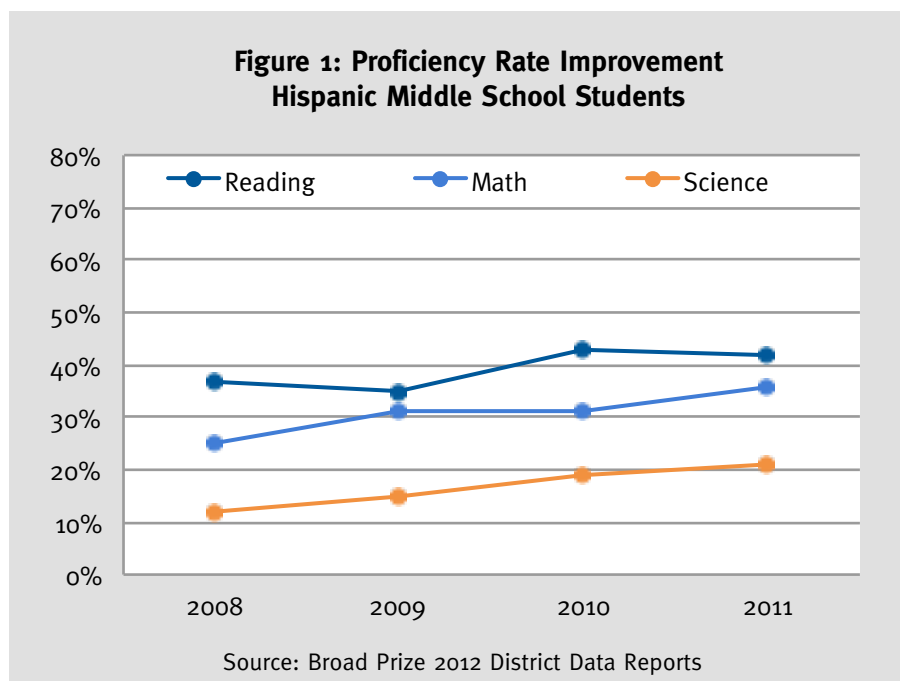
Disaggregated by student sub-group, DPS Hispanic middle school students are among the top 30 percent in the state for fastest improvement in reading, mathematics and science proficiency, as shown in Figure 1. Denver's Hispanic elementary and high school students are among the top 40 to 50 percent of Colorado school districts in those three subjects for fastest improvement in proficiency from 2008 to 2011.

Predicted or expected proficiency rates are calculated relative to all other school districts in Colorado, controlling for the percentage of low-income students at each grade level. Generally, a large, low-income student body is an indicator of low performance. By controlling for, or taking into account, the percentage of low-income students in each grade level across school districts enables determining how well a given school district should be performing relative to others in their state.

If the predicted proficiency rate is higher than the actual proficiency rate, then a school district is under-performing. In other words, the school district is not reaching its potential achievement level. If a school district's actual proficiency is above its predicted proficiency, the district is over-performing what is expected given the low-income student population.

DPS is among the top 20 percent and top 30 percent of all Colorado school districts for achieving higher than predicted mathematics proficiency among middle and high school students. This means that, despite having a large low-income student population, Denver Public Schools is among the top Colorado districts for reaching mathematics proficiency rates above those that were expected (predicted) in 2011.

Denver Public Schools is among the top 30 percent of school districts in Colorado for achieving above-average graduation rates among African-American students. Overall, the district's graduation rates have been below the state average, but the average four-year graduation rate among the class of 2011 African-American students is higher than 70 percent of Colorado school districts.

DPS also continues to post strong, steady improvement in its four-year "on-time" graduation rate, which has increased by 20 percentage points over the past five years to 58.8 percent for 2011–2012.[19] From 2010 to 2012, DPS has increased graduation rates at a higher rate than the state among African-American and Hispanic students, and on average twice as much each year as the state average overall and among low-income students, shown in Figure 2.

Figure 2: Graduation Rate Improvement

Source: Colorado Department of Education SchoolVIEW Data Center
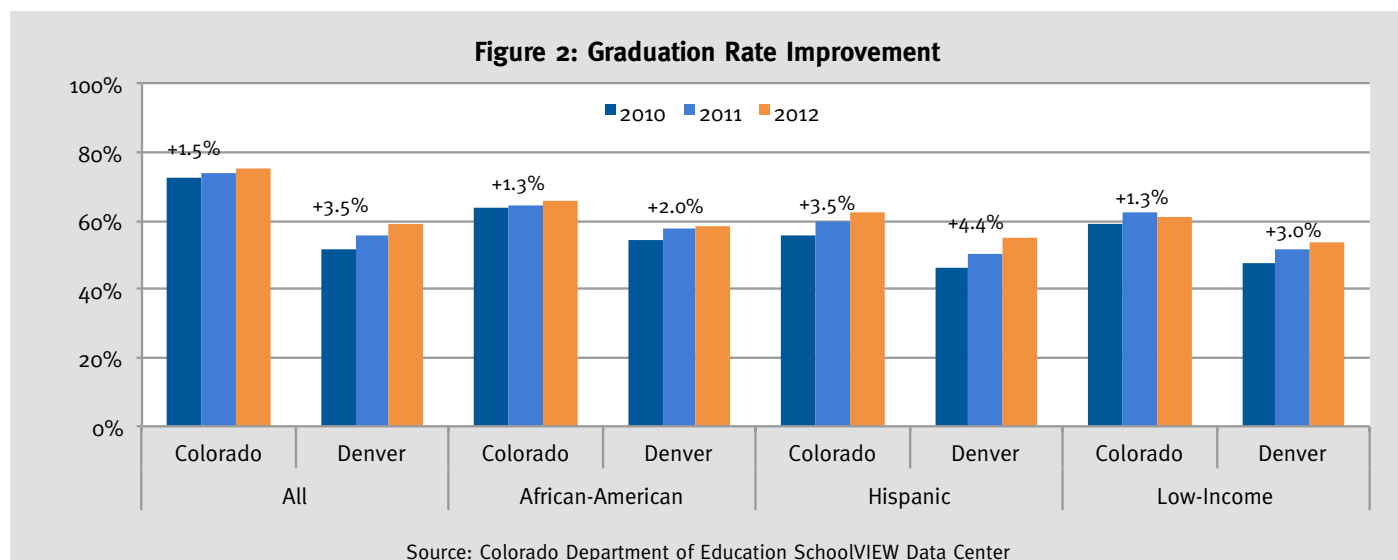
The five-year completion rate for DPS students rose to 67 percent. At the same time, the district's dropout rate continues to fall, with the rate now half of what it was in school year 2005–2006. The dropout rate fell to 5.7 percent, a nearly 50 percent decline compared to the 11.1 percent dropout rate in the district in 2005–06 at the start of the Denver Plan reforms.

Achievement Gaps

The following three achievement gaps are measured across all grade levels (elementary, middle and high school) and school subjects (reading, mathematics and science):

Category	Grade
2011 Achievement Gaps	F
Improvement in Achievement Gaps	F
Achievement Gap Closures:	
Internal District	F
Internal District vs. Internal State	F
External Achievement Gaps	C

- African-American versus White student proficiency;

- Hispanic versus White student proficiency, and

- Low-income versus non-low-income student proficiency.

Internal district achievement gaps (IDG) are measured as proficiency gaps between disadvantaged and non-disadvantaged student groups within a given district. Because internal district achievement gaps are measured for each district in the state, this analysis ranks relative size of achievement gaps across districts in the state, and how quickly those achievement gaps are closing from 2008 to 2011.

An achievement gap is considered to be closing if the disadvantaged student group proficiency rate is increasing faster than the advantaged student group proficiency rate.

Denver Public Schools is among Colorado school districts with the largest achievement gaps between advantaged and disadvantaged student groups. Further, DPS is failing to close achievement gaps over time. This means that, although disadvantged student groups—such as African-American, Hispanic and low-income students—are improving proficiency, they are not doing so as quickly as advantaged student groups, such as White and non-low-income students.

Achievement gaps in Denver were measured between White and Hispanic students and non-low-income and low-income students. Relative to other Colorado school districts, the Hispanic vs. White achievement gaps are worse than those between non-low-income and low-income students, but Hispanic students' proficiency rates are improving more quickly than low-income students.

In addition to internal district achievement gaps (IDG) discussed above, this analysis also measures internal district versus internal state (ID vs. IS) achievement gaps and external district achievement gaps (EDG).

Internal district achievement gaps (IDG) are measured between student groups within the district. Internal district versus internal state (ID vs. IS) achievement gaps are measured as the district's achievement gap versus the average achievement gap of every other district in Colorado (excluding Denver Public Schools). If a given DPS achievement gap is closing faster than that of the rest of the state, the ID vs. IS gap is considered to be closing. Finally, external achievement gaps (EDG) are measured by the difference between the district's disadvantaged student group proficiency rate and the advantaged student group

average proficiency rate of all other districts in the state. External achievement gaps are considered to be closing if the district disadvantaged group proficiency rate is increasing faster than the state advantaged group. Table 2, below, shows which achievement gaps DPS is closing, and which achievement gaps are not closing, given the available data.

Table 2: All Achievement Gap Closures

Achievement Gap	School Level	Subject	IDG	ID vs. IS	EDG
African-American vs. White	Elementary	Math	X	†	X
Hispanic vs. White	Elementary	Math	X	X	√
Low-income vs. Non-low-income	Elementary	Math	X	X	√
African-American vs. White	Elementary	Reading	X	†	X
Hispanic vs. White	Elementary	Reading	X	X	X
Low-income vs. Non-low-income	Elementary	Reading	X	X	X
African-American vs. White	Elementary	Science	X	X	X
Hispanic vs. White	Elementary	Science	X	X	X
Low-income vs. Non-low-income	Elementary	Science	X	X	X
African-American vs. White	Middle School	Math	X	†	√
Hispanic vs. White	Middle School	Math	X	X	√
Low-income vs. Non-low-income	Middle School	Math	X	X	√
African-American vs. White	Middle School	Reading	X	†	X
Hispanic vs. White	Middle School	Reading	√	X	√
Low-income vs. Non-low-income	Middle School	Reading	X	X	√
African-American vs. White	Middle School	Science	X	†	√
Hispanic vs. White	Middle School	Science	X	X	√
Low-income vs. Non-low-income	Middle School	Science	X	X	√
African-American vs. White	High School	Math	X	†	X
Hispanic vs. White	High School	Math	X	X	√
Low-income vs. Non-low-income	High School	Math	X	X	X
African-American vs. White	High School	Reading	X	†	X
Hispanic vs. White	High School	Reading	X	X	√
Low-income vs. Non-low-income	High School	Reading	X	X	X
African-American vs. White	High School	Science	X	†	X
Hispanic vs. White	High School	Science	X	X	X
Low-income vs. Non-low-income	High School	Science	X	X	X
Total Gaps Closing out of Total Available:			1/27	0/19	12/27

† Data were suppressed due to unreliability or group represented less than 5 percent of test-takers at that grade level.

As shown in Table 2, Denver Public Schools is struggling to close achievement gaps between disadvantaged and advantaged student groups. The only internal district achievement gap that the district is actively closing is reading proficiency among Hispanic students versus that of White students. Further, as

shown by the internal district versus internal state achievement gap, DPS is failing to close achievement gaps as quickly as the "rest of state" average achievement gaps.

DPS is closing the most achievement gaps as measured by external achievement gaps. Specifically, Hispanic students in the district are closing the achievement gap against the "rest of state" average White students. This shows that the percentage of Hispanic students in the district reaching proficiency in mathematics, reading and science is growing faster year-to-year than that of White students' state average.

Areas for Improvement

Denver Public Schools' low-income students had below-average proficiency rates in reading, mathematics and science in 2011 relative to the rest of the state, and show slow average improvement in proficiency over time, shown in Figure 3. In order for these students to catch up with the rest of the state DPS will need to focus on more quickly improving their proficiency at every school level.

Figure 3: Average Proficiency Rate Improvement, Low-Income Students

Source: Broad Prize 2012 District Data Reports
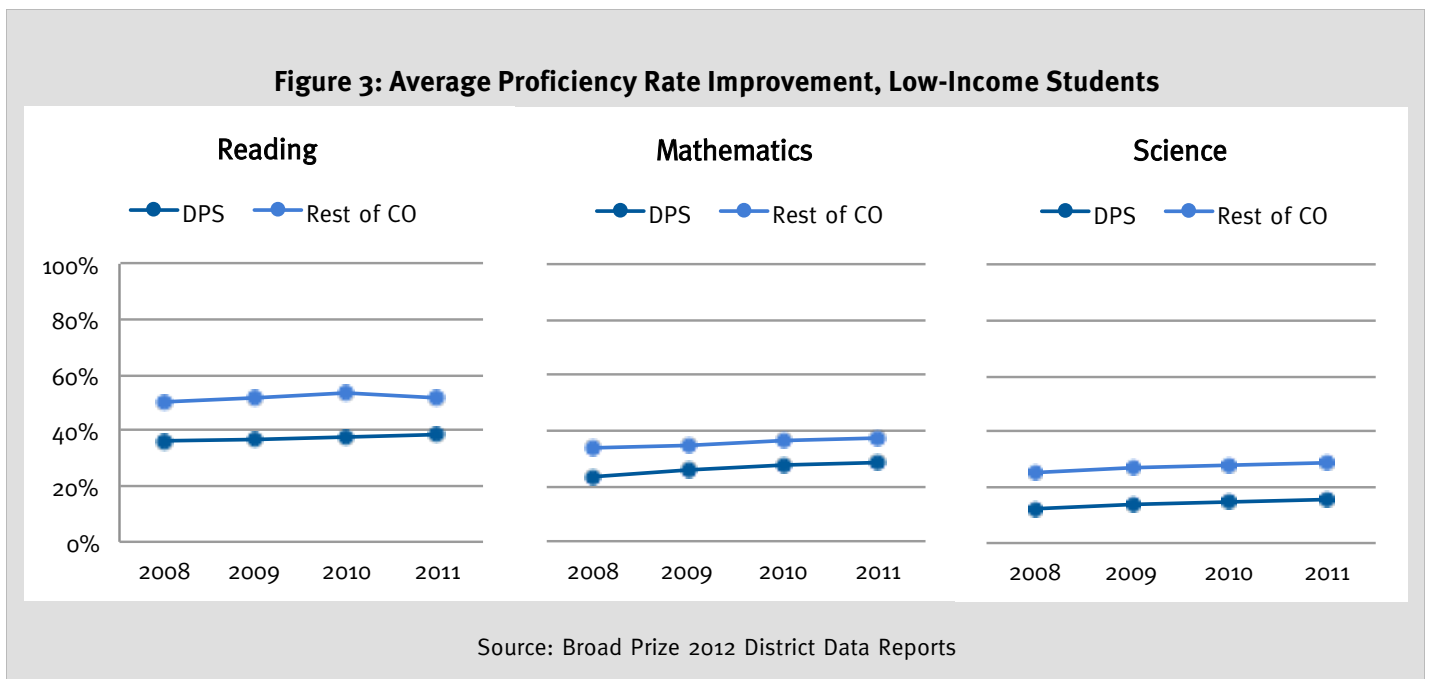
Denver Public Schools is among the bottom Colorado school districts for 2011 achievement gaps and does not show that achievement gaps are closing quickly, if at all. In particular, although Hispanic students are quickly increasing proficiency, DPS is failing to close proficiency disparity between Hispanic and White students, shown in Figure 4.

Figure 4: 2011 Achievement Gaps between Hispanic and White Students

Source: Broad Prize 2012 District Data Reports
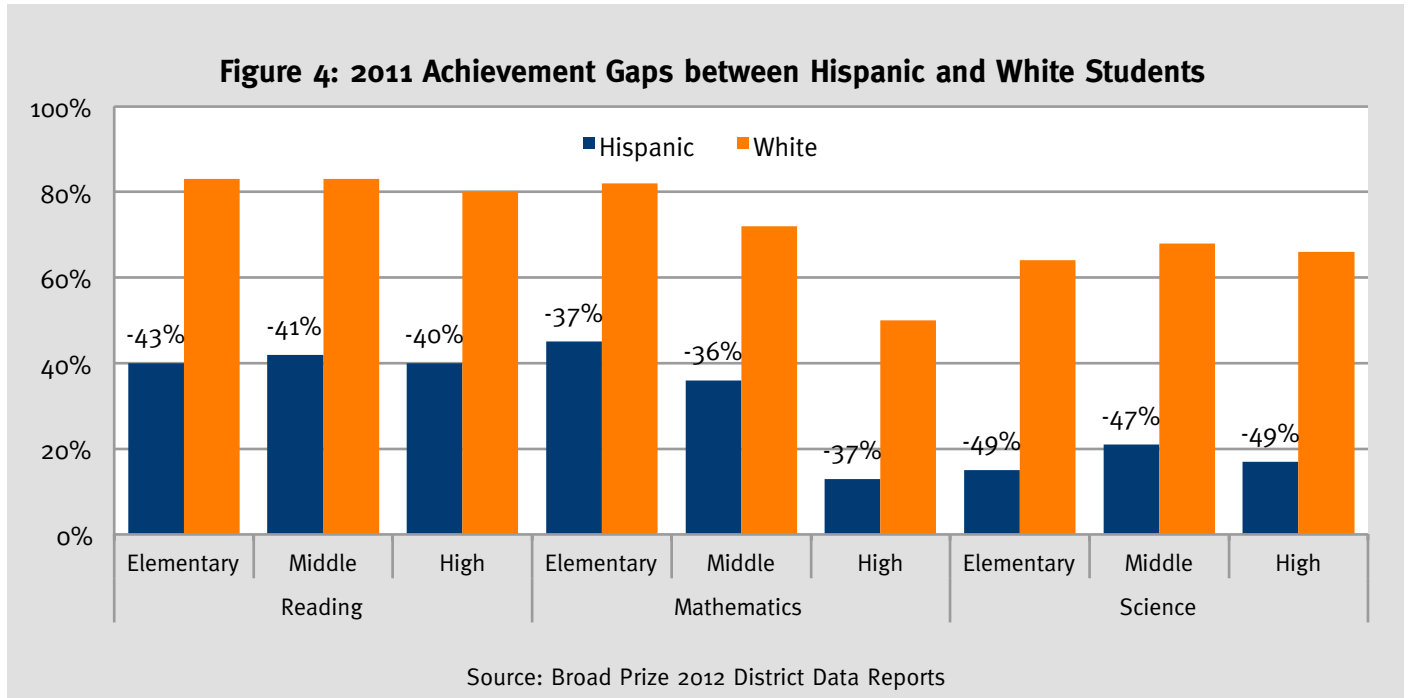
As shown in the chart above, the percentage of Hispanic students in DPS proficient in reading, mathematics and science is nearly half the percentage of White students.

School Empowerment Benchmarks

Denver Public Schools met nine out of the 10 school empowerment benchmarks, indicating a strong weighted student formula implementation.

Category	Grade
School Empowerment Benchmarks	A
School budgets based on students not staffing	Yes
Charge schools actual versus average salaries	No
School choice and open enrollment policies	Yes
Principal autonomy over budgets	Yes
Principal autonomy over hiring	Yes
Principal training and school capacity building	Yes
Published transparent school-level budgets	Yes
Published transparent school-level outcomes	Yes
Explicit accountability goals	Yes
Collective bargaining relief, flat contracts, etc.	Yes

9. Lessons Learned in Denver

1. Denver provides an example of how an integrated school accountability framework and a comprehensive performance pay system can complement student-based budgeting and move a school district in the direction of autonomy at the school level in exchange for accountability. The performance pay system provides the teachers and the principals with financial incentives to meet specific accountability goals.

2. Denver has used student-based budgeting to incentivize school performance and offers an explicit "performance rate" that rewards schools with discretionary funding for student growth and improvement tied to the district accountability system.

3. Denver offers a complete set of budget guidance documents and how-to videos as well as in-person budget trainings that offer principals comprehensive step-by-step instructions and show the value of developing a consistent set of budget development tools to reduce the time and effort that principals spend on the technical aspects of budget development.

4. Denver demonstrates the importance of giving principals control over personnel. It is hard to hold principals accountable for school performance if they cannot choose their school's staff.

5. Denver demonstrates that closing under-enrolled and low-performing schools can redirect scarce district resources to students who previously were enrolled in the closing schools and that money can follow those students into newer higher-performing schools. It also can provide additional resources to create new high quality schools.

Resources

- Accelerating Achievement in the Denver Public Schools, Council of the Great City Schools, Winter 2008–2009, http://www.cgcs.org/Pubs/DenverInstructional_08.pdf.

- Denver Public Schools, Budget Guidance Manual 2013–2014, http://static.dpsk12.org/gems/budgetbeta/1314BGMFINAL.pdf.

- Denver Public Schools, Five Year Goals, February 17, 2009, http://communications.dpsk12.org/assets/js/tiny_mce/plugins/filemanager/files/districtgoals/5-year%20Goals%20Presentation.pdf.

- Metro Organizations for People, "Delving Deeper into the DPS Student Based Budgeting: Next Steps in Transparency and Equity," http://www.piconetwork.org/admin/tools_resources/files/0051.pdf.

- Metro Organizations for People, "Unraveling the DPS Budget: Toward Transparency and Equity through Weighted Student Funding," http://www.makingconnectionsdenver.org/publications/uploads/61/Unraveling_The_DPS_Budget.pdf.

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Endnotes

1   Denver Public Schools, "Facts and Figures 2012–2013," http://communications.dpsk12.org/facts.html.

2   "Accelerating Achievement in the Denver Public Schools," Council of the Great City Schools, Winter 2008–2009, pg. 6, http://www.cgcs.org/Pubs/DenverInstructional_08.pdf.

3   *Financial Resources Management Plan*, Denver Public Schools, Fiscal Year 2007–2008, p. 1, June 21, 2007, http://businessmanuals.dpsk12.org/07_08_SBB/0708_Adopted_Book.pdf.

4   Nancy Mitchell, "DPS Takes on Funding Formula," *Rocky Mountain News*, January 11, 2008.

5   Guerin Lee Green, "An Interview—DPS Superintendent Tom Boasberg," *North Denver News*, March 11, 2009.

6   Ibid.

7   For detailed information on how the SBB budgeting process works see *2009–2010 Budget Guidance Manual*, Denver Public Schools, http://businessmanuals.dpsk12.org/09-10/Budget_Guidance_Manual-schools.pdf.

8   The methodology used for determining principal autonomy is explained in detail in section 2 of the methodology chapter of the *Weighted Student Formula Yearbook*.

9   For more information see *Teacher Staffing, Principals Manual 2009–2010*, http://hr.dpsk12.org/teacher_staffing/pdf/HandbookTeacherStaffing0910.pdf.

10   http://budgetoffice.dpsk12.org/

11   This policy may be found in the Board Policies section of the DPS website: http://www.dpsk12.org/policies/

12   http://schoolchoice.dpsk12.org/

13   "Number of DPS Schools Earning Top Ratings on District Performance Framework Continues to Grow," Denver Public Schools, September 12, 2013. http://communications.dpsk12.org/announcement.html?id=149.

14   For more information see, *Teacher ProComp*, Denver Public Schools, http://denverprocomp.dpsk12.org/about/overview

15   http://www.broadprize.org/resources/reports2012.html

16   U.S. Department of Education, EDFacts, *Adjusted Cohort Graduation Rates at the School Level: School Year 2010–11,* https://explore.data.gov/Education/School-graduation-rates/5vtz-kvrk, April 17, 2013.

17   Denver Public Schools, "Hundreds More Denver 3rd-Graders at Grade-level in Reading," May 7, 2013, http://communications.dpsk12.org/announcement.html?id=413.

18   Denver Public Schools, "DPS Students Post Highest Year-to-Year Growth Among State's 20 Largest Districts," http://communications.dpsk12.org/announcement.html?id=152.

19   Denver Public Schools, "DPS Graduation Rates Continue Marked Improvement," April 2, 2013, http://communications.dpsk12.org/announcement.html?id=325.