



Public Education Leadership Project at Harvard University

A JOINT INITIATIVE OF
THE HARVARD GRADUATE SCHOOL OF EDUCATION
AND HARVARD BUSINESS SCHOOL

PEL-076
JUNE 28, 2016

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Denver Public Schools 2015: Innovation *and* Performance?

The status quo is failing us. We cannot be on cruise control. We need radical change. Innovation and change are key. I believe every major change requires some degree of innovation.

— Tom Boasberg, Superintendent, Denver Public Schools

It was late November 2015 as Tom Boasberg, superintendent of Denver Public Schools (DPS), checked his family's passports one more time. In a month he and his wife and children would head to Argentina for a six-month sabbatical; the check list of to-dos was not getting any shorter. Boasberg's preparations for his sabbatical included making sure the next six months' course for DPS was clearly charted. The district faced a range of challenges. While DPS had seen growth and improved student achievement across the district (see **Exhibit 1** for graduation rates over time), many underperforming traditional district schools struggled to improve. Dishearteningly, some that showed ratings gains slipped back into an underperforming rating soon after.

The board, teachers and principals, parents and community, along with DPS's central administration, were mixed about the best way to "fix" persistently low-performing schools. Some believed close linkages across DPS's 199 schools, a focus on transferring best practices across the district, and ensuring teaching and curriculum activity met national (or district) benchmarks was the best path. They emphasized the importance of providing support to build teachers' and school leaders' capacity and skills, and develop better educational resources for schools, given the extraordinarily far-reaching changes and higher expectations demanded by the new Common Core State Standards (CCSS), introduced in 2010.

The board, with a newly elected majority, believed that increased autonomy and flexibility at the individual school level would lead to better performing schools. Earlier that year, the board decided to move DPS to an opt-in system, where every principal could choose to opt-in or not to district-recommended curriculum, professional learning and interim assessment. Some community members favored this approach too; they had clamored for "the bureaucracy of DPS" to "get out of the way," as one board member said. Others were more cautious. DPS COO David Suppes said, "Some of these school leaders are already dealing with some really hard challenges. Many want parameters and

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guidelines providing clarity on where they have flexibility to make decisions and do things their own way. They're asking DPS to set boundaries."

In a district as large and diverse as Denver's, heterogeneity was to be expected; Boasberg noted, "You want a level of tension, on one side to push more innovation while the other part of the organization is trying to manage things well and make the stuff that you've already got work better." But feelings remained mixed on how best to address underperforming schools across the entire district. "Some will push for tighter centralized administration controls, and will want more sharing of traditional or existing best practices," a board member acknowledged. "In other instances, parent coalitions are demanding: 'You're not fixing schools! Our kids don't have the luxury of waiting. It's time to try something new. We need to innovate our way out of this!'" Boasberg believed that innovation was a vital part of a school's turnaround. Since his appointment as superintendent in 2009, he had worked hard to structure the district and build the skills and capacity needed to innovate and improve school performances. He explained:

There's always a tension when a school is really struggling, how much do you focus on getting the fundamentals strong, yet not make it so the only schools that innovate are the ones that are already performing well, which often serve a higher proportion of more affluent kids? How much of your efforts do you put in to getting people to block and tackle very well before trying to create a complex passing offense? This is the constant challenge.

Before departing on sabbatical, Boasberg also had to recommend to the board an interim superintendent. He faced several options: bringing in an outsider; choosing one of his two direct reports—Susana Cordova, chief of schools, or Alyssa Whitehead-Bust, chief academic and innovation officer; or, tapping another district official.¹ With the board's latest decision to move to a fully opt-in system, with its first deployment occurring in part during his absence, he considered the skills needed to help DPS navigate these new options. On a broader level, he knew the organization continued to grapple with whether greater innovation and flexibility across the district helped or hindered in improving schools. Boasberg puzzled about those organizational, cultural, and leadership issues that were most crucial to continue the momentum he had achieved over the past seven years. He also considered what criteria he should use in making his recommendation for interim superintendent.

Denver Public Schools: A Brief History

Denver's first school opened on October 3, 1859, in a log cabin. In 1902, the City and County of Denver were created, and Denver Public Schools District No. 1 was formed, with the first school board election held in May 1903.² Through the 1950s and 1960s, Denver's population grew through territorial expansions and the post-war baby boom. School enrollments grew by extension. From the late 1960s to the 1990s court rulings pushed the city of Denver to desegregate public schools. Magnet schools^a emerged as one way to desegregate schools. By the mid-1990s, Denver opened its first charter school,^b

^a Magnet schools were public schools with specialized programs or curricula.

^b Charter schools were public schools (they received government funding) that operated independently of the district in which they were located. They were formed through an agreement, or charter, with the district; agreements typically lasted three to five years and could be renewed. The charter established the school's mission, program of study, student body, and evaluation methodology. They were typically managed by charter management organizations, or CMOs. They reported to an independent board. CMOs managed everything for the charter, from hiring and staffing, to transportation and other operational aspects.

reflecting the growing interest nation-wide amongst some educators and parents to pursue alternative education models. (See **Appendix A** for a brief overview of school choice.)

In the late 1990s, desegregation lost political ground and in 1997 DPS ended bussing and reverted to a system of neighborhood schools.³ The late 1990s also brought an increased emphasis on school accountability prompting the Colorado Student Assessment Program (CSAP) to introduce state exams and set state benchmarks. Into the 2000s, DPS saw little improvement in student test scores. The district struggled with high superintendent turnover and financial challenges, in part due to low per-pupil funding; loss of students to other districts or private schools; compensation increases against stagnating revenues;⁴ ongoing tensions between the school board, school administration, and teachers union;⁵ and an increasingly diverse student population. (**Exhibit 2** provides information about student enrollment and demographics over time.)⁶ One observer noted, “Student achievement has been lackluster across the board for years, but success has been exceptionally unattainable for Denver’s students of color. [. . .] Denver Public Schools hovers in a state of crisis. Student achievement has been stagnant for years. The achievement gap between white students and students of color, and between students of different socioeconomic backgrounds, is astronomical.”⁷

By 2005, services for all district schools were managed centrally, including curriculum development, budget management, transportation, facilities management, food services, professional development, and evaluation and measurement. In 2005, Michael Bennet was appointed superintendent of DPS.

The Denver Plan(s): Managing Schools in a Growing District

Denver Plan 2010: Investing in Innovation and Autonomy

One of Bennet’s earliest steps in office was to develop a five-year strategic plan—called the Denver Plan—to set a vision for DPS looking ahead to 2010 and to align the district’s activities.⁸ The Denver Plan 2005 had three main areas of focus: highly skilled and empowered teachers, great school leaders, and close community collaboration.⁹ It embodied the district’s first-ever vision statement.¹⁰

Bennet and his colleagues believed they could turn the tide on student achievement gaps with professional development for teachers, greater reliance on data to help measure and improve student outcomes, and strong leadership from principals. Yet these three concepts ran headlong into deeply held perspectives that were hard to change. As one observer wrote, professional development for Bennett meant teachers collaborating on teaching techniques, yet most teachers operated most comfortably in a classroom solo.¹¹ Relying on data to measure and drive student outcomes added fuel to ongoing contentious debates about teaching-to-the-tests.¹² Principals were already overburdened maintaining their buildings, keeping their schools operating, managing employees, and dealing with parents;¹³ some had little experience and were still developing their own leadership capabilities.

In 2007, Bennet asked Boasberg, a childhood friend, to join DPS as his chief operating officer. Trained as a lawyer, Boasberg had worked closely as chief of staff to the chairman of Hong Kong’s first political party in the early 1990s, when the colony held its first elections in its 150 years of British rule. On his experience in Asia Boasberg acknowledged, “I learned a great deal about the dynamics, tensions, and politics of leading major changes.” He returned to the U.S. and worked as senior advisor to the chair of the Federal Communications Commission and head of business development for

networking infrastructure firm Level 3 in Asia. These environments gave Boasberg experience in leading innovation and change in vastly different contexts.

The DPS opportunity presented new challenges, but not completely unfamiliar ones. Boasberg recalled, “Michael was a political visionary, looking for someone with experience managing a larger organization, to bring operational and project management skills. I had extensive experience in leading complicated, politically charged change efforts, in both the public and private spheres.”

In 2008, the Colorado legislature, working closely with Bennet and Boasberg, passed the Innovation Schools Act to help district and school leaders develop and implement innovative practices to improve student outcomes. The Act aimed to “provide additional flexibility to schools and districts for the purpose of meeting student needs.”¹⁴ Prospective innovation schools could petition for innovation status^c with majority support from teachers, administrators, and the School Accountability Committee.

DPS’s innovation schools sought flexibility and autonomy from a range of administrative elements, including the collective bargaining agreement (CBA) with the district’s teachers union and state laws around teacher tenure. Innovation status granted schools waivers from the CBA and state law, and allowed schools significantly greater flexibility in the use of time and scheduling, the length of the school year and day, the roles of staff, job protections for teachers, and the ability to differentiate pay. Further, a number of schools utilized innovation status to gain waivers from district policy (including more flexibility over use of district-provided support services, or the ability to use a different core curriculum.)¹⁵ DPS’s innovation schools were assigned to networks with other innovation schools within the district, creating innovation-school networks within the DPS system.

Getting DPS Schools Out of “Red”

In 2008, DPS launched its School Performance Framework (SPF), used to rate schools’ performance based on a series of indicators, the most important of which was the year-to-year academic growth of students on state assessments. School ratings were color-coded from blue (distinguished) through green (meets expectations) to orange (accredited on watch) and red (accredited on probation); the last two were considered underperforming ratings. In 2008, out of a total of 153 schools, 10 DPS schools were rated blue while 35 were rated red (24% of all district schools).¹⁶ That same year, DPS moved to a school-based budget system, where schools managed their own budgets, which were calculated on the basis of student enrollment weighted for the needs of the students in the school, in a “money-follows-the-student” budgeting system.

In 2009 Bennet was elected a U.S. Senator and the board appointed Boasberg as superintendent. Observers characterized Boasberg as Bennet’s natural successor: the two had trained as lawyers, had similar backgrounds and experience as business leaders, and were close childhood friends. Then-DPS school board president noted that DPS “wouldn’t skip a beat” with Boasberg’s appointment.¹⁷ Similarly, his lack of education experience made him a maverick to some; Van Schoales, CEO of education reform advocacy organization A+ Denver, commented, “Tom’s strength is also his weakness. He’s not an educator. I think because of that, he’s been more open-minded to doing things differently. [. . .]”¹⁸

^c Petitions were accompanied by statements of support from staff, parents, students and the community. An innovation school’s status had to be renewed every three to five years. DPS’s Office of School Reform and Innovation (OSRI) helped schools seeking innovation status through the process.

DPS under Tom Boasberg

By 2009, DPS had made some gains. The district graduated 200 more seniors than in 2005.¹⁹ Preschool enrollment increased five-fold from 2007-2010.²⁰ The district worked with a generous donor to establish the Denver Scholarship Foundation^d to provide counseling and financial assistance to help high school graduates apply and pay for college.²¹ The number of “red” schools in the district dropped to 12% in 2010.²² Decentralization made some headway; hiring decisions were pushed out to the individual school level, adding an additional element of autonomy and flexibility for school leaders to meet their individual school’s needs. Other gains included doubling the number of high school students who took Advanced Placement (AP) courses or concurrently enrolled in college programs; reducing the drop-out rate by one-third; and increasing participation in full-day kindergarten from 72% to over 90%.²³

Boasberg credited these overall improved ratings to closing or reforming the lowest-performing schools (**Exhibit 3** shows school openings and closings over time).²⁴ Yet, student proficiency continued to lag and achievement gaps between African-American and Latino students and their white and Asian-American counterparts remained unacceptably wide. Less than 50% of DPS students were proficient on the state’s reading measures, and less than 40% were proficient in math and writing.²⁵ Retention rates were also dropping, with average tenure for a principal at 2.7 years, and high teacher turnover rate. As Boasberg took over, he was quite aware that many schools were underperforming; experience and instinct told him that innovation—and its associated decentralizations—would be key to DPS’s ability to serve Denver’s children over time.

Not long after taking office, Boasberg restructured DPS’s organization into four units: academics, secondary education, elementary education, and the office of school reform and innovation (OSRI).^e (**Exhibit 4** provides an organization chart.) He named Cordova chief academic officer, the third CAO in five years. She was responsible for all the district’s academic initiatives, including curriculum, teacher professional development, pedagogy and assessments.²⁶ A year later, Boasberg named Whitehead-Bust chief of innovation and reform, overseeing OSRI, and managing DPS’s charters and innovation schools to replace her predecessor who moved to become CAO of Chicago Public Schools.

The new structure kept a fairly clean separation between Cordova’s job as CAO to drive changes across all schools aimed at improving the level of instruction to meet the new Common Core standards’ demands, and Whitehead-Bust’s efforts to support innovation and flexibility across DPS schools. Whitehead-Bust noted, “Some of the board had come to hold innovation sacred, and Tom hoped to insulate the experimentation and risk involved with innovating from the rest of the larger system.” Boasberg added, “Our biggest challenge was promoting innovation amongst those schools with the ability and desire to innovate, while not isolating that innovation from other schools.”

Additional challenges came in 2010, when Colorado adopted the Common Core State Standards (CCSS), developed to better prepare K-12 students for college and careers by providing “consistent learning goals across states” for English language arts and literacy (ELA) and mathematics. CCSS and its associated exams differed in many ways from existing standards.^f For example, ELA standards

^d The Foundation was separate from DPS.

^e Post-secondary readiness (PSR) supported DPS schools in their work with students to ensure they were prepared for college or a career. Early childhood education and care services provided support for DPS’s youngest learners.

^f In 2009, state leaders, including governors and state commissioners of education from 48 states, two territories and the District of Columbia, developed common, college- and career-ready standards in mathematics and English language arts. Source: <http://www.corestandards.org/about-the-standards/frequently-asked-questions/>, accessed June 2016.

placed more emphasis on grammar, writing, phonics, and using textual evidence,²⁷ while math standards introduced a sequence of study aimed at better connecting mathematical concepts learned throughout a child's school years.²⁸ These introduced unexpected and significant challenges. Boasberg recalled:

The Common Core Standards have profoundly shifted the type of teaching and learning needed in our classrooms. Instead of memorizing and applying mathematical formula, students must now be able to solve complex word problems, demonstrating both conceptual understanding as well as application fluency. In language arts, students now not only have to read significantly harder texts, they also had to be able to write persuasive arguments about the texts, citing textual evidence.

Educators had to significantly alter professional development efforts and change curricula and teaching plans.²⁹ Given its large population of English language learners, DPS struggled to find a curriculum and textbooks aligned with CCSS.³⁰ Boasberg added, "It is hard to overestimate the amount of professional learning involved over the last several years for teachers and school leaders—and district level leaders—to understand the new standards and the change in curriculum, pedagogy, classroom assignments, and assessments involved. We had to drive ways to significantly lift the level of, and fundamentally change the nature of, instruction across all our schools."

In 2010, over a year-long inclusive process, Boasberg and his team drew up DPS's Denver Plan 2015. The updated plan had 21 goals, including targets of 3.5% increases annually across a range of student proficiency and college enrollment measures.³¹

Between 2009 and 2011, DPS opened 45 new district-run and charter schools, out of a total of 192 schools, as the district experienced dramatic enrollment growth, with more families coming into DPS than were leaving. And by fall of 2011, pockets of improvement continued to surface. Yet challenges continued: one observer wrote, "While individual schools in all corners of the city are having great success at raising the bar of student achievement, Denver families continue to opt for private campuses and other metro area school systems at an alarming pace [. . .]."³² Four-year high school graduation rates were only 55%, and of those DPS graduates who went on to college, 60% needed remedial courses to adjust to their new course load.³³

Innovate or Execute Better?

The board remained split on how best to address these unsatisfactory results. Some favored Boasberg's focus on opening new schools; others looked for focus on improving existing schools. Increasingly the board, and some DPS district staff and educators, felt blended or personalized learning approaches could help bridge the gaps in student achievement and improve failing schools' performance. Consequently, DPS schools, both innovation and non-innovation, began to explore flexible approaches to teaching and classroom pedagogy, including blended or personalized learning approaches.⁸ These new pedagogical approaches were distinctly different from traditional teaching practices where one teacher stood in front of a blackboard and taught a classroom of 25 or 30 students, delivering the lesson in a one-to-many model. The spread of technology (e.g., personal computers, tablets, electronic whiteboards and other devices) enabled teachers to pursue more flexible ways to spend time in the classroom, including breaking students into smaller separate groups to collaborate;

⁸ Blended learning approaches provided a number of strategies that helped support personalized learning, including differentiated instruction, flipped classroom, incorporation of technology, and flexibility of control over time, place, path or pace of content delivery, learning environment and teaching/learning pace.

engaging them with opportunities to complete their lessons via technology in a self-paced manner; or relying on technology to develop and enhance skills and learning. In 2012, DPS received a \$3 million grant to support blended learning.³⁴

Yet feelings were mixed towards innovation as an antidote; some saw it as a distraction or burden on teachers already struggling to deliver curriculum to lagging students. One board member characterized the community's sentiment, "They were very supportive, but along the lines of 'We're happy for you to try new things. Just don't take risks with my kid.'" Cheri Wrench, DPS's executive director of personalized learning, acknowledged, "All the competing initiatives and children underperforming get in the way of innovative approaches that might involve personalized or blended learning." Gregg Gonzales, instructional superintendent, added, "There is a very big tension between putting resources into innovation and doing things differently, versus executing against known best practices." Boasberg recalled:

We needed to be an ambidextrous organization. We needed to push innovation and take some risks, while executing carefully and precisely across all schools. But I didn't have the language then to help articulate that dichotomy. To some people, innovation means only "leaving people alone." That's an incomplete narrative, but it's politically compelling: "If the bureaucracy would just get out of the way, everything would be fine." But getting out of the way to allow innovation to flourish is only part of the story—it is necessary but not sufficient. The lesson from innovative organizations is that it is important to have strong systems of talent development, networks of mentoring and shared learning, and investment in promising innovations. And, in education, a key lesson from the most successful charter networks has been how important system-wide learning and quality implementation has been to their success at scale.

DPS struggled to bring underperforming schools up to par, and despite achieving the highest efficiency gains of any urban district nationally, they were only achievement gains of 2% to 3%.³⁵ One board member noted, "With 2% to 3% student achievement gains, it would be decades before we'd hit our goals. Some of us felt we needed to think outside the box."

Try Innovation

Boasberg and his team continued to look to bridge these gaps. Across the district, innovative approaches to teaching and classroom design had begun to gain ground. Several at-risk traditional schools explored bolder efforts to turn their performance around. For example, Grant Middle School (later renamed Grant Beacon Middle School) rated "yellow" on the SPF in 2008 and facing continued declining enrollment numbers, launched an experiment. Teachers were given autonomy with regard to district pacing and planning guides, as well as for classroom plans. The relatively new principal brought in a business manager to help administer the school. One Grant Beacon school leader said, "Teachers were allowed to be creative; the shackles flew off." In order to implement these practices, Grant Beacon had to apply for innovation status, with help from OSRI to work through the application process. Collectively, Grant Beacon's leadership had a vision to provide personalized learning that would be technology-enabled and individualized to students, and paired it with a strong focus—including evaluation—on student character. After a pilot to test results, the school incorporated blended learning across much of the curriculum and extended the school day by one hour. "Some teachers faced challenges," Grant Beacon's principal acknowledged. "We started small. The learning curve for getting up to speed using technology in these ways is steep." The school saw gains, however, with a 9% increase in proficient or advanced scores in reading, and a 15% jump in math proficiency after the first year of blended learning.³⁶

Denver Green School's predecessor school was identified as an underperforming school and closed in 2005. Seven educators from diverse backgrounds came together as founders to start a new school in its place, with curriculum based in sustainability practices, teaching opportunities that would draw heavily on personalized learning approaches, and a shared leadership model akin to a professional services firm. The school re-opened in 2009 and, with help from DPS's OSRI, gained innovation status in 2011. The Green School's grounds incorporated a one-acre farm site, and integrated food- and farm-related activities into the students' education programs. Some DPS representatives were skeptical of the proposal; one worried about young preschool students finding their way out of the enclosed playground, picking fruit from the farm site and choking on it.³⁷ A growing season producing 11,000 pounds provided food to the school's cafeteria and a local CSA.

Denver Green's curriculum extended outside the classroom to integrate harvest activities and working with farmers, with a reading project for sixth graders on Michael Pollen's *Omnivore's Dilemma*, and a visit to DPS's food processing plant in Pueblo, Colorado. A teacher noted, "They're learning about the Continental Divide and understanding water cycles across the continent, and then seeing examples of the impact of water resources in their day-to-day lives. One team proposed a plan to install drip irrigation and change out plumbing fixtures that saves us one million gallons at the school." A second-grade sustainability project integrated second-grade math curriculum. Students investigated their building's light and power use and created a plan that introduced behavioral changes and other steps that cut in half the number of lights needed in the building, saving the school \$1,200 a year. That year's second graders scored in the top five in district math growth (a DPS measure of improvement). (Exhibit 5 provides information about select DPS innovation schools.)

But How Do I Innovate?

For some teachers these innovative approaches presented a dramatic shift from their training, expertise and experience. "There are lots of teachers who don't know how to teach with technology and are terrified of it," Wrench said, adding, "Personalized or blended learning requires a complete paradigm shift for some. It is philosophical and abstract until they actually try it." Working with new approaches was sometimes difficult and it was difficult to bring new approaches into some schools. Denver Green's school leader commented, "The kind of project-based learning and our integrated curriculum makes it harder than more traditional schools (and traditional curriculum). It's harder to do well and takes more time. We need teachers who are motivated by this type of learning and who crave the freedom to create such a curriculum." Wrench added, "There are pockets of teachers in schools that want more innovation—like personalized or blended learning. But they are in a school where they lack flexibility or the leadership necessary to support those efforts." Whitehead-Bust acknowledged, "There were two issues: there was a critical lack of capacity to support schools to innovate and empower people to get change into the system—there were just too few resources and too many demands on people's time. And there was a culture that resisted innovating."

Across the U.S., many school districts retained a command-and-control leadership model that drove clear and consistent expectations for performance, but often offered little flexibility for employees, and at times produced an environment tinged with a fear of risk and failure. One DPS OSRI colleague remarked, "The system is tasked with cultivating young adults who are growth-oriented, who are creative and innovative problem solvers, and who are resilient, yet the system itself is not very growth-oriented or innovative." But some DPS innovation schools felt the tide was turning. At Denver Green, teacher retention had improved, despite the steep learning curve and demanding nature of the job.

Systematizing Innovation at DPS

By 2013, DPS found that many principals still did not take full advantage of the school-based, money-follows-the-student budgeting system, which offered school leaders flexibility and some autonomy in the ways they addressed their individual school's needs. One insider noted, "Principals were generally not taking advantage of their flexibility to reflect on how their time, people and money resources could be better utilized, and stuck with practices from the pre-2008, central-dictated system." Boasberg added, "'Getting out of the way,' so to speak, had not produced much change, in part because of the lack of some key skills."

DPS launched a strategic school design initiative within OSRI aimed at supporting individual school efforts to restructure and align their resources (i.e., people, time, money) to drive student achievement since principals had greater control over their school's resources. This required new skills on the part of principals, as Whitehead-Bust explained, "Leaders need to think differently about how they can restructure their resources to increase student achievement. [. . .] They need to develop technical and adaptive skills. [. . .] They need to shorten assessment cycles, and they need to use their time more efficiently."³⁸ The initiative helped principals think about how to best allocate their resources. She added, "It sounds intuitive when you come from a business background, but it's not how we've traditionally trained our principals."³⁹ Principals learned how to exercise more control over their calendars, including combining blocks of classroom time in flexible ways to provide extended time for "deep dives" with students, or to give teachers the ability to coordinate collaboration time while students took electives. They could stagger teacher schedules to provide increased one-on-one time with students. They could reorganize teaching assignments or sometimes acquire additional technology to better utilize classroom time and make time for individual student attention. Boasberg said, "We wanted to invest in helping school leaders master new skills to innovate new practices."

To provide additional support and mentorship for principals, DPS adapted the existing role of instructional superintendents and reduced the number of schools/principals each supervised. In addition to their training in Strategic School Design, instructional superintendents, all former principals, had extensive training in the instructional shifts required by the new Common Core standards and had lead responsibility to coach their principals through these difficult changes. Cordova noted, "One key is the strength of leadership capabilities in our principals. We're placing a huge emphasis on developing our pipeline of leadership. Experience matters. And in terms of coaching, you do things differently for a second-year principal than you do for a fifth-year principal." Each instructional superintendent oversaw about eight principals and consulted with them on budget and staffing decisions, with the decisions ultimately being up to each principal. Generally, principals relied on curriculum created by the district. Board Member Barbara O'Brien recalled, "Susana and Tom placed a heavy bet on the instructional superintendents, in the belief that their coaching, evaluation and professional development would improve the effectiveness of more principals. Their theory of change was that principals would get better at the craft, and therefore students would do better." However, individual approaches to the role of instructional superintendent varied widely, Cordova noted, and beliefs about best practices diverged. Anecdotally, some principals told board members that the number of network meetings and pressure for them to attend grew, taking them out of their schools.

Instructional superintendents were charged with evaluating their principals based on a range of factors, including student, teacher, and school performance. These evaluations, in turn, influenced compensation outcomes. Boasberg distributed instructional superintendents' loads to balance the number of schools they oversaw, and ensure each had enough time for their schools. School Board President Anne Rowe added, "DPS is very much a hierarchical structure, with senior people, and a giant instructional superintendent structure, under which sit school leaders and educators. It is very

management-driven. Some school leaders thought of their instructional superintendents as their supervisors.” Instructional superintendents approached their jobs in very diverse ways, however, with some managing their principals very closely, and others playing more of a coaching or mentoring role, giving their principals a great deal of freedom.

Can Innovation Lead to Improvement?

In 2013, the debate over innovative approaches in DPS schools versus traditional approaches became more pointed when a report^h found that Denver public schools that had greater control over budgeting, teacher hires, and school calendars showed higher levels of student academic growth and teacher empowerment than those less empowered schools.⁴⁰ For some, this affirmed the notion that improved performance – be it student academic growth or increased levels of teacher empowerment – was associated with being an innovation or charter school.

However, the report also found that the number of students performing at grade level in the studied group was still below the state average, which some suspected was because many students were already performing well below grade level when the innovation experiments started.⁴¹ And while innovation school teachers reported feeling more empowered, teacher turnover rates were 11% higher than at other schools without innovation status. On average, teachers in innovation schools were less experienced as well (3.77 years of experience, versus 9.05 years in comparison schools).⁴² Innovation school principals had less experience overall, with 54% with fewer than three years of experience, contrasted to 38% of principals at comparison schools.⁴³

Finally, while underperforming schools often seemed most ripe for blended learning and other innovative approaches, some of these schools were in communities most resistant to change. O’Brien explained, “For some communities that had experienced a lot of change in their schools, innovating sounded like experimenting on their kids. So in some areas we were seeing a backlash. We kept hearing that they just wanted their schools to be better and why wasn’t that happening?” Boasberg added, “I have come to appreciate more deeply the very high level of precision and skill needed to run a highly successful school for very low income kids, given the lack of privilege and resources many of these students have. Our new schools with a very high percentage of lower income kids have a mixed record, while the track record of our new schools with a more privileged student body is much stronger.”

Tensions around choice and flexibility continued through 2013, and attempts to innovate were often overshadowed by the challenges teachers and principals faced running schools. “There was endless amounts of paperwork, forms to fill in, boxes to check,” said one middle school teacher. “With a day already overbooked, and not enough teacher-student time, we were being pushed further and further away from our primary tasks as we faced meeting professional development and other district-led requirements.” Yet, some teachers saw the benefits of trying new things. One middle school math teacher, who had been teaching math in traditional classroom settings for over 20 years but had recently moved to Grant Beacon, elaborated:

I have more than 30 students in my eighth grade math class. They are at a range of levels. About a third are ready for more advanced concepts, we’re looking at quadratic equations. Another third are not quite there, but they are advancing quickly. And a third

^h The report was part of a three-year study of 19 innovation schools in Denver and 10 comparison schools. It examined teacher empowerment, workforce capacity and student outcomes. Jenny Brundin, “Denver ‘innovation’ schools show mixed results,” *Colorado Public Radio*, January 14, 2014, <http://www.cpr.org/news/story/denver-innovation-schools-show-mixed-results>, accessed May 2015.

is not able to engage at either of these levels yet. They need more individualized attention, and one or two require a lot of one-on-one time and need to be carefully matched up with their peers in our learning exercises as they can be disruptive to the learning process for others. With a teacher's aide and graduate student or teacher-in-training, I am able to facilitate three different learning levels in one classroom. Some work on assignments on their laptops, some work in collaborative groups, and some receive more traditional teacher-student instruction. Each group spends 12 minutes in a module and then rotates to the next one.

Technology could provide additional leverage. Another Grant Beacon teacher explained:

The technology allows me to track each of my students individually and instantly, so I can see exactly where they're answering a question wrong or getting stuck on a problem. I used to have to wait until I got home to grade assignments to have a clear picture of where specific kids in the class were struggling. [I now have] the tools to individualize instruction to the students who need it—and allow others to move ahead at their own pace. It's truly changed how I am teaching.⁴⁴

For some teachers, the classroom's physical arrangement also shifted. One middle school teacher described, "I'm rarely standing at the front of a classroom 'teaching' in the traditional way. There are groups of desks, along with a bank of tablets or computers sometimes. The students are moving around. I'm facilitating. I'm making sure everyone keeps moving forward. I'm not describing or telling; I'm asking questions."

Plus, Innovation is Hard

Yet, personalized learning approaches seemed exotic to others, and required different planning and greater levels of coordination, both in advance of class time and within the classroom. Cordova said, "In one school that's in its fourth year of turn-around, we're piloting a new math program. Aspects of their plan include highly personalized learning. But they are challenged by weak staff, so it is really difficult for them to succeed." For some teachers, shifting to incorporate personalized learning meant "relearning" how to teach something they had taught comfortably for years or upended their long-standing experience and success. Wrench noted, "There are lots of teachers who are accustomed to control in the classroom. They don't subscribe to the student voice and choice that is fundamental to personalized learning." Capacity remained a constant challenge, as Cordova said, "These are schools where teachers are already struggling. Do we want to ask them to try something new, when they are already over-stressed?"

Many principals found that instructional superintendents provided welcome support and coaching. Boasberg noted that anonymous annual surveys found that an overwhelming majority of DPS principals gave their instructional superintendents very high marks. Some principals struggled, however, when matched with an instructional superintendent who favored a different approach from theirs. One reported, "They're suffocating me. I totally philosophically disagree with what my instructional superintendent tells me I should be doing. But that's where my job comes from. Keeping my job means keeping my instructional superintendent happy." Boasberg said, "In any organization that promotes independent-minded, innovative leaders, you would expect to find leaders expressing their concerns about organization-wide policies, and we think this tension is important and healthy."

Streamlining DPS for Innovation and Change

In May 2014, Boasberg restructured DPS's leadership again. The new organization combined the existing four district heads into two, one led by Cordova as chief schools officer (CSO) and one by Whitehead-Bust as chief academic and innovation officer (CAIO). "Four heads was producing schizophrenia," Boasberg said. "I hoped coming to two would reduce that, and ease our ability to coordinate." Whitehead-Bust was now responsible for core academic services including student services, English language learning, academics (personalized learning, professional development, curriculum and instruction), the soon-to-be-launched Imaginarium, portfolio management (which included the charter schools), and evaluation and accountability. Her focus included both incremental improvements and innovation in schools, curricula and pedagogies. Cordova now oversaw all schools, including early education, and the 37 innovation schools. She focused substantially on the underperforming schools designated for turnaround. (**Exhibit 6** provides a 2014 organization chart.)

The restructuring divided OSRI into two departments: Innovation and Strategy, which developed and supported new schools, and Portfolio,ⁱ which managed charter schools.⁴⁵ The district also planned to replace its central office-based curriculum coordinator with dozens of content specialists who were to spend 80% of their time in schools.⁴⁶ There were 32 schools in the bottom performance tier and 16 or so in the next tier up; about 74 of 154 district-managed schools were below standard; an additional 19 charter schools also fell below standard. Boasberg and his team pondered how to move them up—was innovation an answer? "Almost half of our principals are dealing with underperforming schools. I worry that the last thing you're going to do is innovate," Cordova said, adding:

We are working hard to understand why there are so many underperforming schools, and what the root causes of their underperformance is linked to. School leadership and teacher preparedness is the key. We need strong growth across schools. We need a strong approach around professional development. We need stronger gains in secondary schools in terms of alternate routes to college readiness. Our aim is to focus on multiple paths to readiness. There are disparate gains across white, Latino and African American students. How do we increase these alternate paths? Do we have enough emphasis on the right tools for career and college readiness?

The Imaginarium: Making Innovation Easier?

In later 2014, DPS launched the Imaginarium, a central office housed in OSRI, with a team of professionals that supported the design and implementation of innovation and personalized learning efforts across the district. Designed as an innovation lab, similar to IDEO, Stanford University's d.school and others, the Imaginarium aimed to foster innovation across the district by helping DPS educators explore personalized learning models and transform learning.⁴⁷ Whitehead-Bust explained, "Having a design lab embedded in the district's organization—literally at its heart in our central offices—would also help DPS build a culture and practice of innovation, in a way an outside organization could not."

Teachers and principals could approach the Imaginarium team with an idea (or ideas); the lab provided support ranging from workshops, planning sessions, learning labs, coaching and consultation services. Together the Imaginarium staff and teacher(s) or principal(s) conducted pre-

ⁱ DPS opted for a "portfolio management" type of governance: the district would invest in the schools by approving, evaluating, and providing services and resources to them.

work to research the proposed innovation and designed a pilot to test the idea(s). Imaginarium staff worked closely in the field with client teacher(s) or principal(s) to implement the approach in the classroom or other appropriate environment (see **Exhibit 7**).

More Work to Do

By fall 2014, DPS saw improvements across a range of metrics (see **Exhibit 8**).⁴⁸ But these were not enough, and DPS continued to look for ways to bring innovation deeper into the system while also creating better alignment across the new structure to ensure clear goals and communication about the implementation of the CCSS. Boasberg said:

Because of the politics of charters, and the traditional divisions in school systems, we weren't seeing nearly the amount of bridging between the traditional side of the district and the innovation side that we needed. Some of this was driven by personality. People wanting to be separate. How do you create the space and support for innovation? How do you keep that from being isolated in a vacuum so the rest of the organization is able to learn from, profit from, the innovations being developed?

Some board members and school leaders experienced a divide between the two DPS divisions; one said, "Susana and Alyssa worked very professionally together, yet at times it felt as if their teams were working in silos. This resulted in people trying to implement strategies that were not always linked." Further, some worried that the new structure silo-ed OSRI, and especially the Imaginarium, off from the rest of the organization, and feared the new structure did little to better link the group charged specifically with innovation to the rest of the school system.

DPS in 2015: Meeting the Needs of a Changing District

By 2015 Denver had experienced a decade of explosive growth, making DPS one of the fastest-growing urban school districts in the country. Enrollment was over 90,000 and the percentage of school-age residents in Denver attending a DPS school had grown significantly, in part due to development in the Northeast and Far Northeast section of the district, and in part due to the growth in charter schools, which accounted for almost half of enrollment growth across the district.⁴⁹ DPS remained a mid-high poverty school system, with a slight decrease in students eligible for free and/or reduced lunch (from 72% to 70%). It was expected that Latino and African-American students would represent 71% of the district. About 11% of students had special needs. About 70% qualified for free or reduced-price school lunch.⁵⁰ About 41% spoke a language other than English at home,⁵¹ with 140 different languages spoken across the district. By this time, DPS had 199 public schools enrolling 91,429 pupils; 35 of these were innovation schools and 55 were charter schools (see **Exhibit 9**).⁵² Some improvements in student assessments had taken hold over time, as DPS's scores showed gains compared to the rest of the state (see **Exhibit 10**). The number of turnaround schools, however, had not significantly improved (see **Exhibit 11**). Enrollment growth was beginning to slow, attributed to lower birthrates and housing affordability (refer to **Exhibit 2**).

The district updated its 2010 vision statement, releasing Denver Plan 2020. Based on the input of 3,000 educators, parents, students, community partners and city leaders during the 2013-2014 school year,⁵³ Denver Plan 2020 outlined five goals and related metrics for the district to achieve by 2020.⁵⁴ These included increasing the number of high-performing schools across the district; improving elementary school proficiency in reading and writing; increasing the four-year graduation rate for

students in ninth grade; closing the gap between graduation rates for African-American and Latino students; and improving the reading and writing proficiency for African-American and Latino third graders. The plan aimed to have 80% of district students attending a green or blue SPF-ranked school.⁵⁵ The heart of Denver Plan 2020 carried a very simple idea, as School Board President Rowe said, “What really drives us is the concept of great schools in every neighborhood.” (See **Exhibit 12** for Denver Plan 2020 shared core values, core beliefs, and vision.)

Getting a District to Decentralize

More schools saw teacher leaders playing a greater role in their schools, and given this, in March 2015 the district announced it would reduce its central office’s peer observers^j—from 49 to 28—in the following school year.⁵⁶ In April, DPS announced the 110 teacher coaching positions that served schools from its central office staff would instead be hired and accountable at the individual school level.⁵⁷ These cuts were framed as “an effort to move more functions out of the district office and to schools,”⁵⁸ shifting schools away from required programming and services, and allowing them instead to “opt-in” to only those services and programs they needed. This approach helped clarify that the schools themselves were the Denver Plan’s unit of change, and now informed efforts to shift DPS’s culture at DPS’s central offices as well. Suppes said, “Central office staff had historically been execution oriented, often silo-ed from their customers’—DPS schools’—individual needs. They had never really been empowered to think of themselves as service providers, meeting these ‘clients’ needs. That has been changing over the past seven to eight years in parts of the central support organization, and now is changing quickly across the entire organization.” Whitehead-Bust said, “You now want to make sure your district roles are aligned to schools and leaders’ specific needs.”⁵⁹ Boasberg acknowledged work remained to be done, “How do we make sure we’re walking the walk and not saying you have flexibility with one hand and taking it away with the other?”⁶⁰

How Loose or Tight a System?

In May 2015, the board approved a new policy under which all schools had the flexibility to opt in or out of district-recommended curriculum, professional development and interim assessments for the upcoming 2015-2016 school year.⁶¹ These changes aimed at achieving the board’s vision articulated in the updated Denver Plan 2020. Principals, as “chief strategists,” would be able to make custom decisions for their schools. They would continue to report into instructional superintendents. DPS Director of Innovation Peter Piccolo said, “We were trying to determine whether to operate a looser or tighter system? Do we operate a more centralized system, with control and decisions kept in the nucleus, or do we empower school leaders—who are closer to the kids—to make decisions? It’s difficult to innovate in a command/control system. We’re trying to find the right balance between centralized and distributed. What is the right degree of flexibility?” That spring, one network of nine DPS charter schools, each of whom had the freedom to choose their own curriculum, decided instead to standardize teachers’ workloads and improve quality control across the network to increase educational outcomes, illustrating the continued ambivalence between taking a centralized versus autonomous approach.⁶²

Further, despite the explicit push to decentralize, barriers to flexibility remained. Rowe noted, “The board was hearing from schools that when they had the opportunity to make decisions about their management and operations, based on what they believed was best for their students and communities, they were saying ‘Thank you for believing in us.’ But we were also hearing that a number

^j District observers gave unbiased observations, evaluations, feedback, and coaching to teachers in their subject area.

of the innovation school leaders were feeling they got more compliance mandates from central than ever before." A board member elaborated:

That's the pattern around most of the innovation schools. They thrived in their own little bubble, but as they started to become more a part of the business of the district, and as there were more of them, the encroachment from central would start to kick in. In the beginning they had lots of room to be nimble, think of new solutions to complex problems. Over time, the central drive to move toward more compliance would creep in and even things that were written into their contracts with DPS—that they were explicitly *allowed* to decide on—would get eroded.

In the fall of 2015, four of DPS's innovation schools' leaders met with Boasberg to discuss the possibility of spinning their schools out into a separate innovation zone, relieving their leaders from almost all of DPS's administrative demands, and giving them autonomy from instructional superintendents. "They said they needed protection—from the instructional superintendents and the central staff on grant-funded initiatives who need their own deliverables on big grants and would pressure them to participate or come to meetings," said one board member. The then-president of the school board was intrigued, and got her fellow board members Rowe and O'Brien onboard as well. Boasberg was supportive but worried that such a move would leave those schools without a clear structure of reporting or accountability. To address this concern, the schools, working with a local foundation proposed to set up a separate 501c3 organization with an independent board of directors to govern the new zone. The principals would be accountable to that entity. Boasberg and the board welcomed the proposal. The board felt it could get behind these efforts because the push was coming from schools that did not want to become charters. "We looked for ways to keep them in the system," Rowe said, adding, "These principals wanted to be part of DPS. They wanted to help systemically change DPS to be better." The innovation zone discussion also helped the board think more deeply about change. "What if we *started* with a fully opt-in environment?" Rowe asked.

Flexibility – At What Cost?

As they contemplated offering such a dramatic degree of flexibility and choice across the district, DPS worried about managing the cost of supporting customized offerings.⁶³ Some were also concerned about elevated risks of failures such freedom of choice might bring.⁶⁴ Finally, how would such changes impact schools' ability to continue to manage the new instructional demands of the Common Core standards? Cordova worried about school staff and teacher unity as principals made decisions about their schools' choices. She felt gauging staff satisfaction with school leadership, and assessing its correlation to school quality, would remain important.⁶⁵ Whitehead-Bust worried the successful but nascent efforts to transform and innovate across DPS schools could be compromised without support from DPS central offices.

The district looked to adopt new programs for some grade levels in order to align to CCSS in literacy and math. Charter and Montessori schools already relied on individualized programming; now this flexibility would be available district-wide. The board had already supported a fully opt-in curriculum in May. Would this bring too much flexibility? Some worried the district might not be able to support the range of different programs individual schools might choose to pursue, and for some, opting for new curriculum could mean less direct support from the district.⁶⁶ Capacity was a concern as well. Cordova added, "If we have larger numbers of people opting out, it takes different skills to support people in that environment."⁶⁷ A completely flexible environment presented uncharted territory: what actions should DPS take if a school began to lose ground when they opted out of regular district services and programs? Boasberg said, "Those are some of the hardest conflicts—if, when, and how to

be directive when schools are struggling.”⁶⁸ Others at DPS’s central offices wondered, “What’s left of DPS if the principals want out of the district?”

Board Changes and a Reappointment

In September the board renewed Boasberg’s one-year contract as DPS superintendent. The board was highly supportive; O’Brien said, “We knew he’d done bold, courageous things around human capital, evaluations systems of teachers, principals and so on. We knew he was open to autonomy and different models of schools. It seemed more important to have consistency, to keep working on implementation of the important building blocks we’ve got in place, than to start anything new. It’s a whole package he’s been working on.”

As the fall played out, some board members worried Boasberg was beginning to back away from their push for decentralization. Given student achievement results projected from the new agenda were not as expected, some wondered, should Boasberg standardize what he saw as best practices, rather than letting schools do it on their own? O’Brien acknowledged, “There had been a ten-year push for serious change in the district and it had produced incremental results, but not the dramatic results for all kids that we wanted. It made sense that Tom would be looking for more assurance of high quality implementation, and therefore go a little bit back towards centralization.”

In November board elections yielded a board unanimously supportive of the broad DPS reform agenda. Rowe noted, “Under Tom’s tenure, and especially since 2013, we moved from a very divided board to a very aligned one. Tom’s vision for driving accelerated outcomes for all students in Denver was quite remarkable. DPS has made great incremental progress, but now it’s time to accelerate and do things that are transformational.”

The Next Six Months

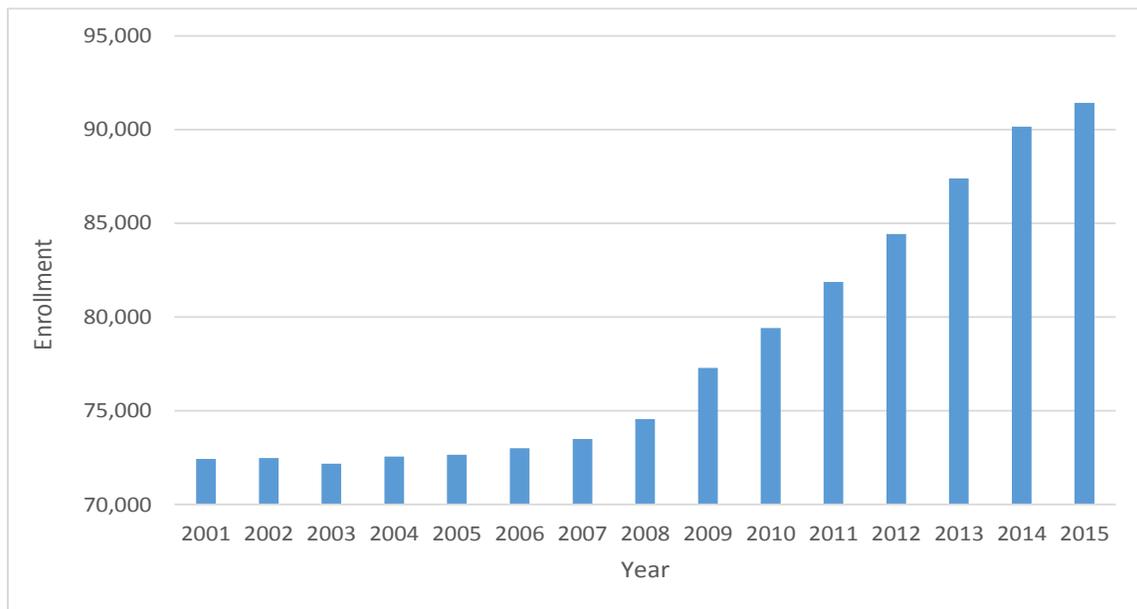
As he packed his family’s passports, Boasberg returned to his thoughts regarding the upcoming six months, and how to ensure his efforts to foster innovation across DPS continued to gain traction during his absence. He had to recommend an acting superintendent during his sabbatical. Cordova had grown up in Denver, was a DPS alumna, had been a teacher and principal in the district, and had a long track record of success. As O’Brien said, “Susana understands the organism that is a school. She understands how a school lives, she is sympathetic to principals’ and teachers’ problems, and to how tough their jobs are.” Whitehead-Bust had come in to the district with an extensive and highly successful track record with charter schools—both in Denver and in other U.S. districts. She had worked tirelessly through OSRI and the Imaginarium to help DPS schools adopt innovative approaches—such as blended learning and teach-to-one approaches—in their classrooms. Rowe said, “Alyssa has been driving innovation successfully now for several years.” Both Cordova and Whitehead-Bust were dedicated to the Denver Plan 2020’s vision, and with Boasberg, both knew DPS had to continue to transform to achieve that vision. With a board even more committed to decentralization and choice, and with a growing number of principals opting for innovation districts, how should Boasberg ensure the momentum of his change agenda at DPS for the next six months? What were his biggest organizational challenges in his on-going change efforts and what criteria should he use in making this important recommendation to his board?

Exhibit 1 DPS Number of Graduates (2004-2015) and Graduation Rates Over Time (2004-2015)

| School Year | Four-Year Graduation Rate (%) | Number of Graduates |
|-------------|-------------------------------|---------------------|
| 2004-05 | (n/a) | 2,777 |
| 2005-06 | (n/a) | 2,664 |
| 2006-07 | 38.7 | 2,814 |
| 2007-08 | 43.01 | 2,879 |
| 2008-09 | 46.4 | 2,893 |
| 2009-10 | 51.82 | 3,246 |
| 2010-11 | 56.09 | 3,360 |
| 2011-12 | 58.83 | 3,416 |
| 2012-13 | 61.28 | 3,456 |
| 2013-14 | 62.83 | 3,608 |
| 2014-15 | 64.8 | 3,813 |

Source: Denver Public Schools.

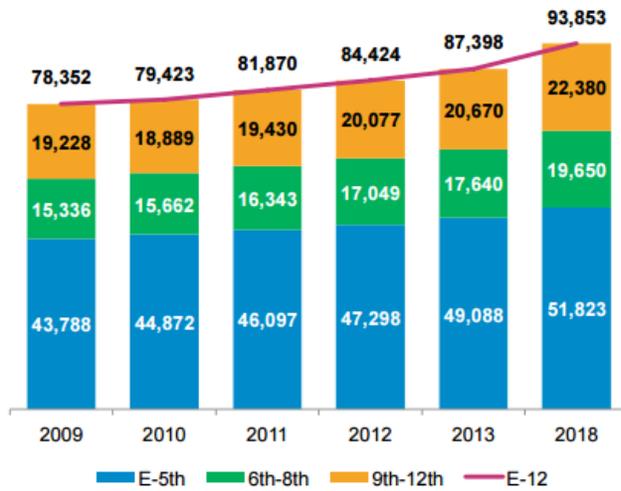
Exhibit 2a DPS ECE*-12 Enrollment, 2001-2015



Source: Compiled from Denver Public Schools, “Strategic Regional Analysis,” Spring 2015, p. 6, <http://media.dpsk12.org/boundarymaps/2015SpringSRA.pdf>, and Denver Public Schools, “Facts and Figures,” <https://www.dpsk12.org/communications/facts.html>, accessed February 2016, both accessed February 2016.

Note: ECE = Early childhood education.

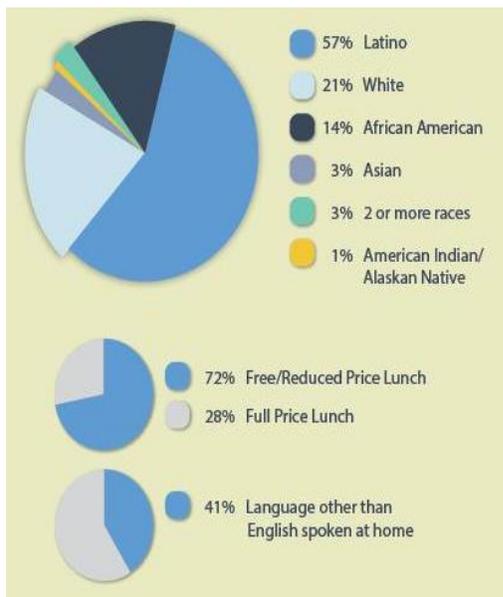
Exhibit 2a (continued) DPS ECE*-12 Enrollment, 2009-2018 (projected)



Source: Denver Public Schools, "Strategic Regional Analysis," Fall 2014, pp. 11-12, <http://planning.dpsk12.org/wp-content/uploads/2014/12/2014-Fall-SRA.pdf>, accessed May 2015.

Note: ECE = Early childhood education.

Exhibit 2b DPS Student Demographics (2014)



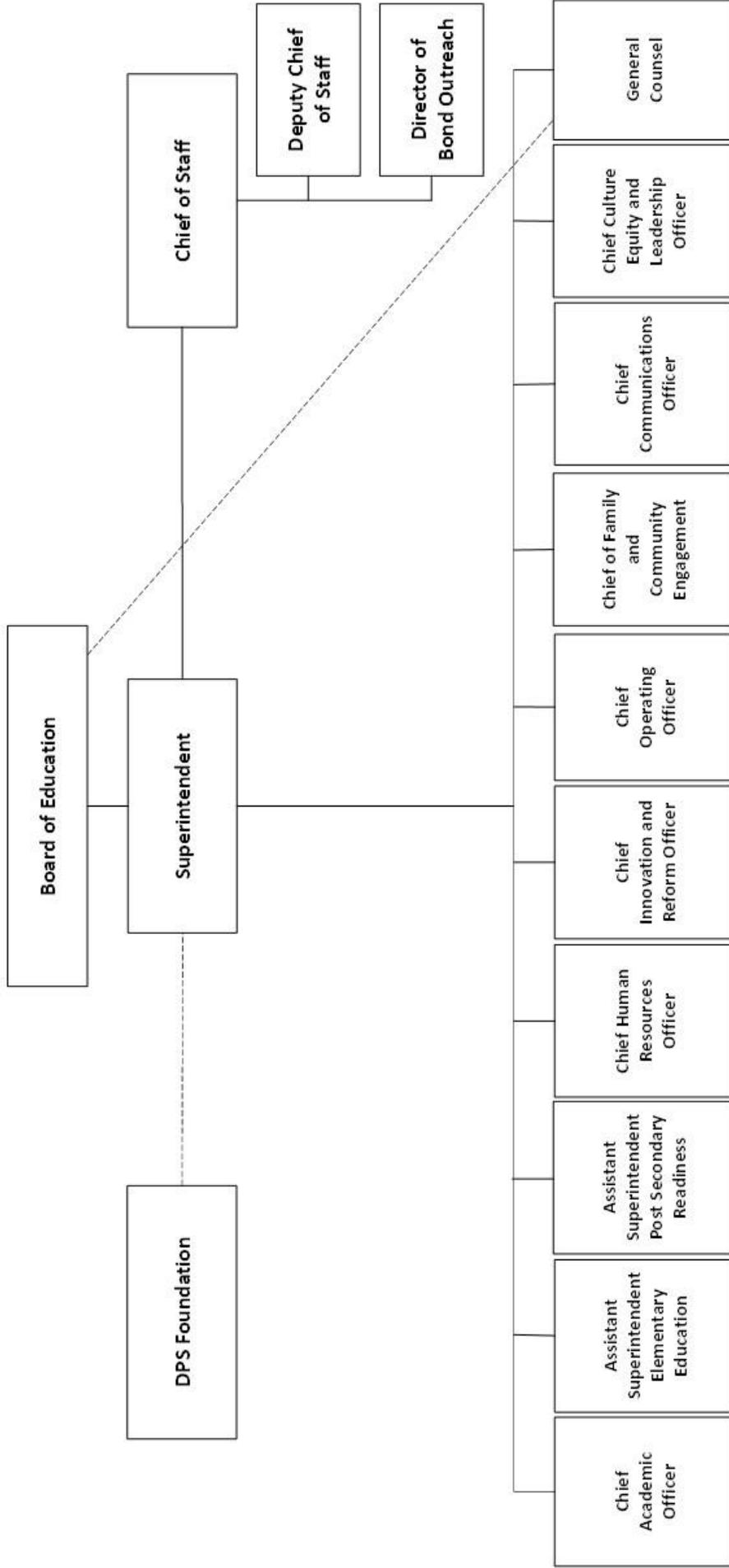
Source: Denver Public Schools, "Denver Plan 2020: Every Child Succeeds," 2014, <http://denverplan.dpsk12.org/wp-content/uploads/2014/02/Denver-Plan-2020-Final.pdf>, accessed May 2015.

Exhibit 3 DPS School Openings and Closings by School Type, 2009-2016

| | School Openings | | School Closings | |
|------|-----------------|---------|-----------------|---------|
| | District | Charter | District | Charter |
| 2009 | 2 | 7 | 1 | 2 |
| 2010 | 10 | 6 | 2 | 3 |
| 2011 | 15 | 5 | 2 | 1 |
| 2012 | 6 | 8 | 4 | 2 |
| 2013 | 0 | 0 | 1 | 0 |
| 2014 | 2 | 6 | 2 | 1 |
| 2015 | 4 | 6 | 1 | 3 |
| 2016 | 2 | 2 | 1 | 1 |

Source: Denver Public Schools.

Exhibit 4 DPS Organizational Structure (2009-2014)



Source: DPS Financial Report 2013-2014, http://financialservices.dpski2.org/wp-content/uploads/2015/03/DPS_CAFR_Final.pdf, accessed May 2016.

Exhibit 5a DPS Schools Granted Innovation Status Over Time

| Year | Number of Schools Granted Innovation Status |
|-----------|---|
| 2008-2009 | 3 |
| 2009-2010 | 4 |
| 2010-2011 | 12 |
| 2011-2012 | 6 |
| 2012-2013 | 5 |
| 2013-2014 | 3 |
| 2014-2015 | 4 |
| Pending | 4 |

Source: Denver Public Schools.

Exhibit 5b DPS Innovation Schools: Select Vignettes

A survey conducted by the Colorado Department of Education found that of schools that engaged in personalized learning, student engagement increased by 69% and staff/administration performance improved by 51%. **Columbian Elementary School** introduced their personalized learning program in 3rd grade classrooms not long after, in January 2016. A \$100,000 grant enabled Columbia to purchase Chromebooks and iPads for all third to fifth grade students. Working with the Imaginarium’s teams, Columbian educators developed an implementation plan that would support students in obtaining technology skills, take ownership of their learning and become independent thinkers.

In 2009, teacher-led **Denver Green School (DGS)** opened its doors, one of DPS’s earliest innovation school. It was located in a neighborhood characterized by some as “a starting point for many immigrants,” side by side with \$2 million homes. Annual turnover for children was at 25%

After almost a year of after-hour meetings, “with lots of beer and coffee, and a wikisite,” as co-founder Frank Coyne recalled, DGS was set up with a distributed leadership model. The leadership partners were all from DPS, a mix of principals, assistant principals and teachers. All had come from schools that were failing or being shut down. Coyne added, “We believed in the community, we wanted to stay in. How can we do something different without becoming a charter school? How can we do something different within the system?” Coyne and his partners envisioned DGS as a model of sustainability and self-sustenance. Its design and curriculum included a farm in the field behind the school, with field work as part of the students’ curriculum. The school had aspirations to be an ECE-12th grade school, but started first with ECE-2nd grade and 6th grade, with plans to expand.

In 2011, **Grant Beacon Middle School** (Grant Beacon), a Denver Public School that served approximately 470 6th to 8th grade students, was performing poorly and struggling to attract students. Grant Beacon principal, Alex Magaña, knew he had to make changes in order to improve student enrollment.

Taking advantage of Colorado’s 2008 Innovation Schools Act, Magaña assembled a group of stakeholders (including school administrators, parents, teachers, and community members) and drafted an innovation plan for Grant Beacon. Central to the plan was a one-hour extension to the school day from Monday to Thursday that allowed time for Extended Learning Opportunities (ELO). These ELO courses spanned a range of diverse fields (e.g., arts, humanities, STEM, wellness, and leadership),

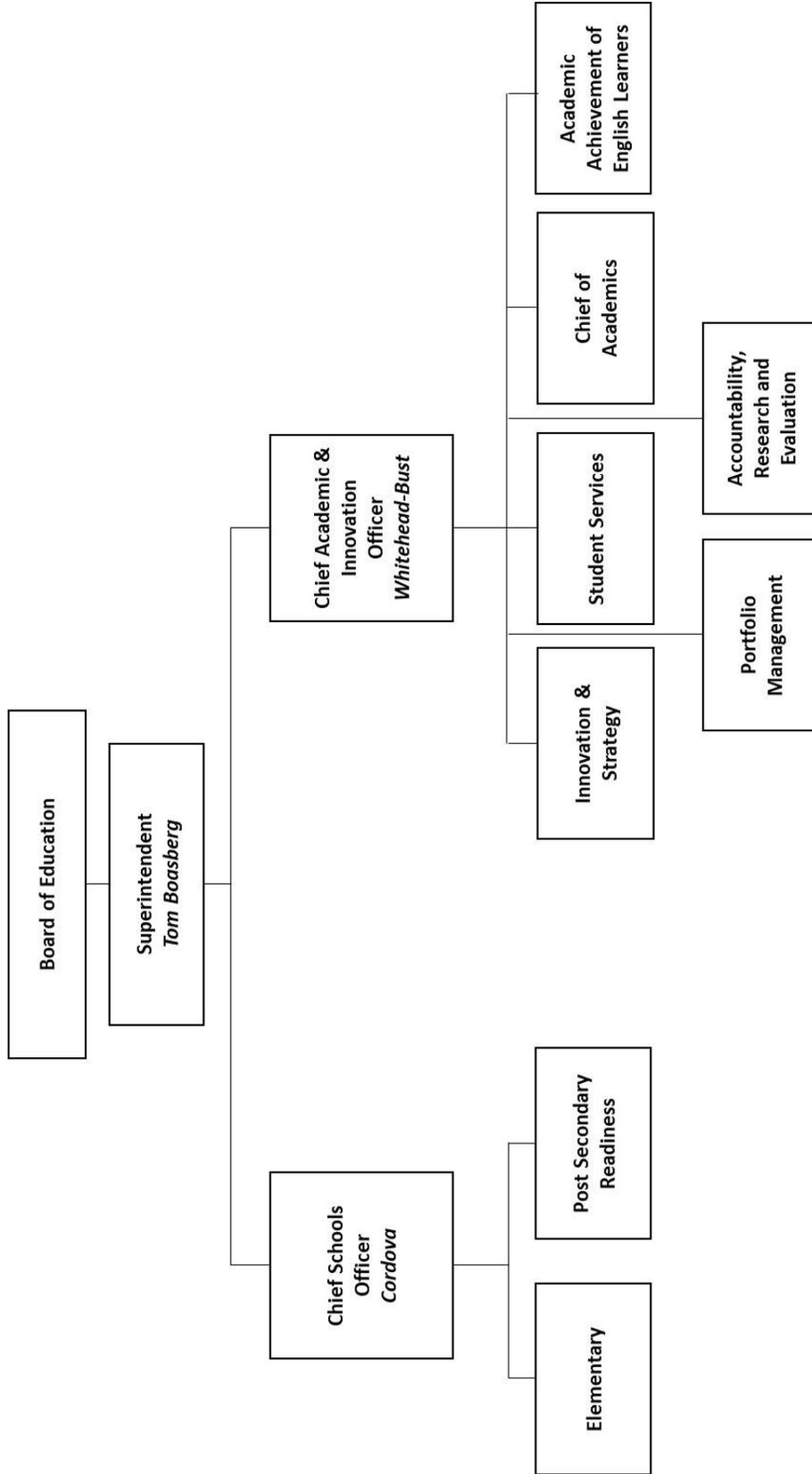
which students selected according to their interests. The Grant Beacon innovation plan also emphasized a blended learning approach and gave teachers more freedom to dictate the setup and planning of their classrooms. As the school's ELO coordinator, Michelle Saab, explained: "When we talked to parents, a lot of them wanted us to look at their child holistically. It wasn't just doing well on [tests], but also providing more enrichment and socio-emotional development." This fed into the school's broader vision to offer technology-enabled personalized learning that was individualized to students, and paired with a strong focus on student character.

The Grant Beacon curriculum was based on three key pillars: blended learning, which redesigned the classroom experience to allow students who needed additional support to receive it while simultaneously enabling more advanced students to move through lessons more quickly; community enrichment, which referred to the school's strong partnership with community organizations; and student leadership. By 2013, Grant Beacon was designated a high performing school—a measure based on student scores on the Transitional Colorado Assessment Program—and test scores were improving in all areas.

Roots, a charter school, was first conceived as "The Grove" on a napkin. Jon Hanover, an investment banker, and several colleagues looked to start a new school that would provide "an exceptionally personalized, rigorous and joyful education" to empower all children. Roots' philosophy was embodied in The Grove, a large, open space where teaching and student project work took place. Pedagogical goals were set daily, versus weekly or biannual, and supported by daily targeted tutoring. The pedagogical philosophy aimed to have students design their own personalized learning plans. Hanover and his colleagues wanted to encourage students to create and Roots aimed to foster the next generation of innovators and entrepreneurs.

Source: Denver Public Schools and casewriter research; Jenifer Rouse, "'Personalized Learning' Rolls Out At Columbian Elementary," *The Tribune*, January 20, 2016, <http://www.northdenvertribune.com/2016/01/personalized-learning-rolls-out-at-columbian-elementary/>; "Extended Learning Opportunities @ Grant Beacon Middle School," *Rose Community Foundation*, : <http://www.slideshare.net/MaganaAlex/extended-learning-opportunities-at-grant-beacon-middle-school>; "Grant Beacon Communicator," May 2011, <http://grant.dpsk12.org/wp-content/uploads/2012/01/newsletter8-1.5Final.pdf>; Alex Magaña, "How An Extended Day, Other Innovations, Turned a Denver Middle School Around," *The Hechinger Report*, October 9, 2014, <http://hechingerreport.org/how-an-extended-day-other-innovations-turned-a-denver-middle-school-around/>; Roots Elementary website, <http://rootselementary.org/>, all accessed June 2016

Exhibit 6 DPS Organizational Structure May 2014 (Simplified)



Source: Denver Public Schools.

Exhibit 7 Imaginarium Programs (2016)

Personalized Learning School Design (PLSD) The Imaginarium guided schools through an iterative design process with the goal to develop personalized learning school models and honor the DPS value of “Students First.” Organizing schools into cohorts for collaborative learning and planning that delved deeply into the work of creating personalized pathways for students, the Imaginarium led schools through an intense planning and design phase. Opportunities included creating paper prototypes and blueprints of their models, travel for out-of-state learning trips and access to personalized learning experts. Once schools were ready to roll out new models and well-developed implementation plans, they continued to receive guidance and support from the Imaginarium field managers to ensure success. This program required the commitment of a team of five or more educators in a school, including full participation from the school leader.

Summer Lab Academies The Imaginarium Summer Lab Academies were a conduit for teachers to prototype their classroom ideas in preparation for the school year. The camp offered innovative teachers a low-stakes environment to test their ideas in a live learning environment with students. Each classroom prototype in the summer camp was implemented through the Plan-Do-Study-Act (PDSA) cycle and had a clear hypothesis with metrics tied to student achievement. Imaginarium field managers and coaches supported innovators in using rapid iterations with frequent data cycles to study, learn, improve and innovate. The frequent assessment for learning and on-site support for continuous improvement made the Imaginarium Summer Lab Academies an ideal forum to exercise boldness, curiosity and watch ideas take flight. Teachers interested in testing individual learning plans, learner profiles, LMS tools and blended learning models could apply to teach in the academy or sign up to observe.

Competency-based Arts Program The Imaginarium’s Competency-based Arts Program explored pathways that allowed a DPS student to achieve an endorsed arts diploma and achieve AP level credit regardless of which high school they attended. Students received support from community-based partnerships, non-profits, and other organizations as they followed their artistic passions in a variety of fields. Arts teachers were part of a cohort designed to collaboratively design and plan a competency-based learning arts experience for their students.

Source: Adapted from Denver Public Schools’ Imaginarium, “Programs,” <http://imaginarium.dpsk12.org/about>, accessed May 2015.

Exhibit 8 DPS District Improvement in 2014

- Academic achievement increased 1% on average for all students from the year before
- Average composite ACT score for the district increased from 18.1 in 2013 to 18.4 in 2014
- AP participation rose by over 300 students from 2013 to 2014, but pass rates declined 0.6% over that same time, with the largest declines in arts and sciences
- In the five years to 2014, the overall achievement gap improved 7 percentage points
- In the five years to 2014, reading scores have improved 0.3 percentage points for African-Americans and 4 percentage points for Latinos
- In the 10 years to 2014, the percent of students scoring proficient or advanced across all subjects increased 15 percentage points

Source: Compiled by casewriter; A+ Denver, “Denver Public Schools Progress Report,” September 2014, p. 1, http://www.aplusdenver.org/_docs/SWTF-Final1.pdf, accessed May 2015.

Exhibit 9 Denver Public Schools (2015-2016)

| Grades | Number of Schools |
|--------------|-------------------|
| ECE-K | 3 |
| Elementary | 93 |
| ECE-8 | 18 |
| ECE-12 | 4 |
| Middle | 28 |
| 6-12 | 14 |
| High Schools | 39 |
| Charter | 55 |

Source: Denver Public Schools, "Facts and Figures," <http://www.dpsk12.org/communications/facts.html>, accessed February 2016.

Note: ECE = Early childhood education.

Exhibit 10 Change in TCAP % Proficiency or Above, DPS and Rest of State (2009-2014)

| Subject | Denver Public Schools | Colorado* |
|---------|-----------------------|-----------|
| Reading | 14% | 1% |
| Math | 18% | 4% |
| Writing | 14% | (2%) |

Source: Denver Public Schools.

Notes: *State results do not include DPS. TCAP = Transitional Colorado Assessment Program.

Exhibit 11 School Turnarounds, 2010-2016

| | Phase-out/Replacement | Redesign/Turnaround | Transformation |
|-----------|-----------------------|---------------------|----------------|
| 2009-2010 | 3 | 0 | 0 |
| 2010-2011 | 1 | 2 | 1 |
| 2011-2012 | 6 | 2 | 0 |
| 2012-2013 | 2 | 2 | 2 |
| 2013-2014 | 0 | 1 | 2 |
| 2014-2015 | 1 | 0 | 4 |
| 2015-2016 | 0 | 1 | 0 |
| 2016-2017 | 2 | 4 | 0 |

Source: Denver Public Schools.

Note: Phase-out/Replacement schools had a new school replace an old school. Redesign/Turnaround schools had a new principal, staff, and program. Transformation schools had a new principal and a modified or improved program, and they had not necessarily received Tiered Intervention Grant (TIG) funding (federal funding for school turnarounds distributed by Colorado's Department of Education).

Exhibit 12a Denver Plan 2020 Goals and Metrics

1. **Great Schools in Every Neighborhood.** Metric: By 2020, 80% of DPS students will attend a high-performing school, measured by region using the district's school performance framework.
2. **A foundation for Success in School.** Metric: By 2020, 80% of DPS third-graders will be at or above grade 80% level in reading and writing, *lectura* and *escritura*.
3. **Ready for College and Career.** Metric: By 2020, the four-year graduation rate for students who start with DPS in ninth grade will increase to 90%. By 2020, we will double the number of students who graduate college and career-ready, as measured by the increasing rigor of the state standard.
4. **Support for the Whole Child.** Metric: By 2015, a task force, including DPS staff, community partners and city agencies providing services to DPS students, will recommend to the Board of Education a plan to measure this goal and track progress.
5. **Close the Opportunity Gap.** Metric: By 2020, the graduation rate for African American and Latino students will increase by 25 percentage points. Reading and writing proficiency for third-grade African American and Latino students will increase by 25 percentage points.

Exhibit 12b Denver Plan 2020 Shared Core Values

- **Students First:** We put our kids' needs at the forefront of everything we do.
- **Integrity:** We tell the truth, and we keep our promises.
- **Equity:** We celebrate our diversity and will provide the necessary resources and supports to eliminate barriers to success and foster a more equitable future for all our kids.
- **Collaboration:** Together as a team, we think, we work and we create in order to reach our goals.
- **Accountability:** We take responsibility for our individual and collective commitments, we grow from success, and we learn from failure.
- **Fun:** We celebrate the joy in our work and foster in our students a joy and passion for learning to last their whole lives.

Source: Denver Public Schools, "Denver Plan 2020: Every Child Succeeds," 2014, <http://denverplan.dpsk12.org/wp-content/uploads/2014/02/Denver-Plan-2020-Final.pdf>, accessed May 2015.

Exhibit 12c Denver Plan 2020 Core Beliefs

- **Every child has talent and potential.** It is up to us to challenge and support each child with a rigorous, well-rounded and culturally relevant education.
- **Our diversity is a community treasure, and equity is the core of our mission.** We commit to building a culture that embraces the unique identity and potential of every child.
- **We can and will eliminate the opportunity gap that leads to achievement gaps.** We must remove school-based barriers to success, focus on accountability and invest resources early to target, support and challenge the students with the most need.
- **We must dramatically accelerate the progress we've made by investing more in what is working and embracing innovation.** By providing a 21st century education, we will empower our students to graduate from high school prepared to thrive in college, career and life.

- **Every family deserves choice and access to high quality schools in their neighborhood.** We commit to providing excellent schools throughout the district.
- **Our kids need all of us—educators, families, community partners and staff—and together, we are Team DPS.** We must empower our families and be united in embracing transparency, proactive communication and strategies for improvement.

Source: Denver Public Schools, “Denver Plan 2020: Every Child Succeeds,” 2014, <http://denverplan.dpsk12.org/wp-content/uploads/2014/02/Denver-Plan-2020-Final.pdf>, accessed May 2015.

Exhibit 12d Denver Plan 2020 Vision



Source: Denver Public Schools, “Denver Plan 2020: Every Child Succeeds,” 2014, pp. 3-4, <http://denverplan.dpsk12.org/wp-content/uploads/2014/02/Denver-Plan-2020-Final.pdf>, accessed May 2015.

Appendix A Brief Overview of the School Choice Movement and Charter Schools in the U.S.

The modern school choice movement dated to the 1950s when Milton Friedman suggested providing government vouchers to pay a student's private school tuition. Albert Shanker, then president of the American Federation of Teachers, further spurred the choice movement in a 1988 speech advocating public charter schools as a way to spur innovation in education and achieve socio-economic and racial diversity in schools. The first modern school voucher program was introduced in 1989, and the first charter school legislation passed in 1991 in Minnesota. By the 2000s, school choice was heavily debated, with proponents arguing that it encouraged innovation and accountability and helped disadvantaged children; opponents argued that it strengthened disparities and hurt already struggling schools. By 2016, 13 states and Washington D.C. offered state voucher programs, and 43 states as well as Washington D.C. allowed charter schools.

Federal legislation provided for parents and students to have a degree of choice in which schools students attended. While public and private schools existed, parents also had the option to homeschool their children in every state. Additionally, in some cases different types of public schools existed to offer options beyond traditional district public schools. Notably, the *No Child Left Behind Act* of 2001^k aimed to provide more choice by allowing parents whose children attended low-performing or unsafe schools to choose a different public school. The law also had provisions for homeschooling and private schools, and it provided for the establishment of more charter schools.

Alternate public school options to traditional public schools were primarily magnet and charter schools. In 2016, magnet schools still aimed to draw a diverse student population. They were organized based on a particular education model, theme (e.g., business and technology), or subject (e.g., the sciences). Entrance exams were sometimes required. Unlike in traditional public schools, magnet school enrollment was not dictated by place of residence within the district, which allowed magnet schools to enroll children beyond a strict geographic portion of the district. Like magnet schools, charter schools enrolled students from across the district. They aimed to allow for innovation and were formed by the community, including parent groups and organizations. Some were created based on particular teaching methods or curricula, while others were formed with specific student populations in mind. Charter schools were subject to state regulations and accountability standards.

The Debate

Charter schools were the topic of much debate in the United States. Proponents of charters argued that the flexibility, competition, and accountability standards established by charter schools encouraged better outcomes and innovation in education while still allowing for public oversight. They argued that charters could help foster diversity in classrooms and served as alternatives to traditional public schools, especially for low-income students of color living in struggling urban school districts. Critics of charter schools questioned whether they resulted in better outcomes, and they argued that the innovations developed in charter schools failed to spread to other schools. Charter schools, according to critics, threatened teachers unions, and local officials did not do enough to close underperforming schools. Critics also argued that because families opted in to charter schools, those families tended to have more resources and parent involvement. They argued that charters maintained disparities for students with the highest need and potentially perpetuated segregation in classrooms.

^k In 1965, President Lyndon Johnson signed the *Elementary and Secondary Education Act* to provide federal funds to low-income schools as part of his War on Poverty. The law was revised and renamed *No Child Left Behind* in 2001 during President George W. Bush's tenure.

The debate mobilized communities at the local level. For example, in Boston, efforts to raise the cap on the number of charter schools allowed in Massachusetts resulted in a campaign by community members and teachers unions to halt charter school expansion. They criticized how the charter schools were funded, arguing that they took resources from traditional public schools.

Source: Casewriter research; International Affairs Office, U.S. Department of Education, "Organization of U.S. Education: The Local Role," U.S. Network for Education Information, February 2008, <http://www2.ed.gov/about/offices/list/ous/international/usnei/us/edlite-org-us.html>; U.S. Department of Education, "Choice for Parents," <http://www2.ed.gov/nclb/choice/index.html>; National Conference of State Legislatures, "Charter Schools in the States," <http://www.ncsl.org/research/education/charter-schools-in-the-states.aspx>; accessed February 10, 2016; and National Conference of State Legislatures, "School Vouchers," <http://www.ncsl.org/research/education/school-choice-vouchers.aspx#History>; Richard D. Kahlenberg and Halley Potter, "The Original Charter School Vision," *New York Times*, August 30, 2014, http://www.nytimes.com/2014/08/31/opinion/sunday/albert-shanker-the-original-charter-school-visionary.html?_r=0; National Conference of State Legislatures, "School Vouchers," <http://www.ncsl.org/research/education/school-choice-vouchers.aspx#History>; Editorial Projects in Education Research Center, "Issues A-Z: Choice," *Education Week*, August 3, 2004, <http://www.edweek.org/ew/issues/choice/>; National Conference of State Legislatures, "School Voucher Laws: State-By-State Comparison," <http://www.ncsl.org/research/education/voucher-law-comparison.aspx>; "Closing the Achievement Gap: The Debate: Cautionary Note," and "Closing the Achievement Gap: Charter School FAQ," *PBS*, http://www.pbs.org/closingtheachievementgap/debate_cautionary.html; Joe Savrock, "Frakenberg Research Shows Segregation in Charter Schools," Penn State College of Education, news release, February 2011, <https://ed.psu.edu/news/releases-jan-mar-2011/frankenbergs-charter-research>; "What Should Parents Know About Charter Schools?" *NPR*, September 15, 2006, <http://www.npr.org/templates/story/story.php?storyId=6081152>; Sara Ray Stoelinga, "Lecture 33, Part 2: Arguments for and Against Charter Schools," *Critical Issues in Urban Education*, webcast transcript, University of Chicago of Coursera, <https://www.coursera.org/learn/urban-education/lecture/ndj1S/part-2-arguments-for-and-against-charter-schools>; Max Lockie, "Charter Schools: The Report Card," *MSNBC*, May 6, 2013, <http://www.msnbc.com/the-cycle/charter-schools-the-report-card>; Trymaine Lee, "Separate and Unequal: The Charter School Pedestal the Public Can't Reach," *MSNBC*, April 25, 2014, <http://www.msnbc.com/msnbc/charter-school-debate-new-york>; James Vaznis, "Hundreds of Parents Band Together to Oppose Charter School Expansion," *Boston Globe*, March 24, 2014, <https://www.bostonglobe.com/metro/2014/03/23/hundreds-boston-parents-band-together-oppose-charter-school-expansion/Hdku0EEcL4UCR2y2maOAgM/story.html>; Jim O'Sullivan, "Charter School Advocates Launch \$18 Million Effort," *Boston Globe*, January 11, 2016, <https://www.bostonglobe.com/metro/2016/01/11/charter-school-advocates-launch-million-campaign/3Z0jyljnQxWvVUBo2GBsrK/story.html>; and NPRed, "No Child Left Behind: What Worked, What Didn't," *NPR*, October 27, 2015, <http://www.npr.org/sections/ed/2015/10/27/443110755/no-child-left-behind-what-worked-what-didnt>, all accessed May 2016

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