Methods to Attract and Retain Teachers in Hard to Staff Schools:

A Report to Aurora, Denver, and Jefferson County Public Schools

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SUMMARY OF FINDINGS

This summary provides a list of six key findings which emerged from APA's study of policies that attract and retain teachers in highly impacted schools across the country. These findings represent top teacher priorities as expressed through surveys and direct interviews with school leaders. As such, they offer Aurora, DPS, and Jefferson County public schools an opportunity to consider policy options which might be piloted in a select number of hard to staff schools to attract and retain teachers and improve working conditions.

1. Increased Planning Time

A consistent finding was the importance of creating additional time for teachers during the school day to plan, use data, share ideas, and work with colleagues. In fact, in terms of importance in creating positive working conditions, three of the top five teacher survey responses were time-related (common planning periods, early dismissal days, and "duty free" schedules).

Top Five Factors Identified by Teachers as Important in Creating Positive Working Conditions	
Rank	**Response**
1	School leadership
2	Common planning periods with content or grade level colleagues
3	Availability of technology
4	Teacher involvement in important school decisions
5 (tie)	Early dismissal days to allow for planning and professional development
5 (tie)	"Duty free" schedule (no bus, lunch, etc., duties for teachers)

Some specific examples of strategies used to provide added time to teachers included:
- Almost all schools ensured their teachers were freed from having to cover lunch, recess, hall, or bus pickup and drop off duties.
- Schools used early dismissal days or creative scheduling of electives to provide at least 3-5 hours of added planning time each week, in addition to a full lunch and planning period.

2. Grade-level Teamwork

Across the schools APA studied, the primary education philosophy was to build teacher collaboration through the creation and ongoing support of *grade level teacher teams*. Such grade level teaming pervades the entire life cycle for teachers in these schools – from hiring and induction to professional development and master teaching.

Importance of Common Grade Level Planning Periods to Creating Positive Working Conditions (By years of teacher experience) Scale: 1 = Not important, 4 = Very Important		
Teacher Experience	Average Response	Overall Rank Among Factors
0-3 Years	3.18	4
4-10 Years	3.46	2
11+ Years	3.51	2

Schools rely on grade level teams to accomplish a variety of core functions, including:

- *Input on new teacher hiring*: Grade level teams participate in interviews, serve as hiring committee chairs, accompany principals to hiring fairs, and conduct informal lunches or meetings with finalist candidates.

- *Delivery of new teacher induction*: New teachers are typically paired with a mentor teacher from their grade level team for 1-2 years. This mentoring process is typically separate from any district induction program.

> *Teachers feel supported by a built-in library of effective lessons. As co-authors of these lessons, they also feel more empowered to tailor them as needed to meet the needs of students in their particular classrooms.*

- *Delivery of professional development*: Appropriate professional development and training is most often provided in grade level planning time rather than across the entire staff. Where appropriate, a master teacher or instructional coach leads the professional development session.

- *Development of common lesson plans*: Lessons are commonly developed during grade level team meetings and are then modeled, observed, and further polished. In some instances, model lessons are taught in succession by each teammate who is observed by other teammates and instructional leaders.

3. Leadership Qualities

APA sought to identify specific practices and leadership philosophies that surfaced across schools and that show a correlation with teacher priorities identified in the teacher survey. Several broad leadership themes were identified through this effort:

- *Instructional leaders*: Principals play a key role in establishing an overall emphasis on use of data to drive instructional decisions. They also either sit directly in grade level team meetings, or have a designated instructional leader in each group.

- *Shared Leadership:* Teachers have significant input into:
  - Hiring decisions.
  - Professional development. Teachers can request, and are typically granted, training opportunities that meet their needs. Principals also use

organized tools to ascertain teacher development needs, including electronic or paper surveys, focus groups, or direct grade level team and individual teacher meetings.
- o Tailoring instruction for their specific classes.

- *Creating a supportive, safe environment*:
  - o Full time counselors tended to be used in elementary schools.
  - o For students with behavior problems, direct home visits from the principal or school social worker were used to reach out to parents.
  - o Parent surveys were used to identify top concerns.
  - o In-school parent academies were used to address items identified in parent surveys.
  - o To ensure parent involvement, schools require signatures on homework logs, parent contracts, and/or place all assignments and expectations online so parents can track student progress.
  - o Schools publicly reward positive student behavior through regularly scheduled award programs.

- *Use of volunteers* from the community – including parents, retirees, businesses, etc. – to reduce adult to student ratios, especially in early grades.

4. School-level Flexibility

Principals in APA's study emphasized how important it was to their success to feel empowered by the district to seek and receive permission to modify or depart from district policies or programs in a variety of areas, including:
- A unique curriculum and supporting materials and assessment programs to meet the needs of their students.
- Their own creative scheduling practices.
- School level induction and programs.
- School level professional development programs.
- Flexibility in resource use.

Principals report that flexibility from the district allows them to better tailor resources and staffing to fit the needs of their school and contributes significantly to their effectiveness as school leaders.

Several principals reported the importance of being granted discretionary power from the district with regard to staffing, funds, and other resources. The level of such discretion varied. In some cases schools were granted discretion in spending a certain percentage (around 30% in two schools, for example) of their overall budget. In other cases schools were given complete discretion over their Title I funds.

5. Supports for struggling students

In keeping with a general philosophy of ensuring that teachers are not left in isolation, the studied schools have implemented strong frameworks for supporting teachers with students that struggle academically. These frameworks include:

- *Intensive use of data* through weekly, monthly, and quarterly assessments to identify students falling behind.
- *Creation of student support teams* to which teachers can refer students. These include the classroom teacher, principal, counselor, and social worker. This team assesses the need for providing additional support and services.
- *Extended learning time* for struggling students through:
  - Before or after school tutoring several times per week. Such tutoring can be mandatory for struggling students.
  - Requiring students to attend tutoring in lieu of elective classes such as music and art until they become academically proficient.
  - Instituting a half-day Saturday school program to prepare students for standardized testing.
  - Additional pay to teachers for participating in extended tutoring hours.

> *Extended learning time for struggling students is provided through a variety of strategies, including mandatory tutoring before or after school.*

6. Technology Support

An interesting finding from the schools APA studied was the important role which technology plays in building positive school working conditions. In fact, according to survey findings, technology ranks in importance just below school leadership and common planning periods.

Importance of Technology to Creating Positive Working Conditions (By years of teacher experience) Scale: 1 = Not important, 4 = Very Important		
Teacher Experience	Average Response	Overall Rank Among Factors
0-3 Years	3.20	3
4-10 Years	3.29	3
11+ Years	3.41	3

- *Laptops.* In five of the nine schools APA interviewed, <u>all</u> teachers are provided with laptop computers. In a sixth school, all instructional leaders and special education teachers are given laptops.
- *Multiple (typically 5-7) networked desktop computers in each classroom.*
- *Smart boards.* Five of the nine schools utilize smart boards to bolster instruction.
- *Personal input devices* to generate rapid, ongoing assessment data of student performance.
- *Document cameras and LCD projectors* which allow teachers to electronically deliver lessons so that students can follow along visually.
- *Stand alone computer labs, mobile computer labs, and laptop carts* with enough computers to accommodate entire classes at once.
- *Wireless or Internet access* in every classroom.

> *In five of the nine schools APA interviewed, all teachers in the school are provided with laptop computers.*

I. INTRODUCTION

This report was prepared by Augenblick, Palaich and Associates, Inc. (APA), a Denver, Colorado-based education consulting firm with over 25 years of experience in education policy and school finance. In early 2007, APA discussed with the Rose Community Foundation in Denver the need to conduct a national study identifying strategies for helping districts attract and retain teachers in hard to staff schools. After speaking with several district leaders, in May 2007 APA received letters of support from the superintendents of the three largest school districts in the Denver-metro area to conduct such a study. The three districts are Aurora Public Schools (APS), Denver Public Schools (DPS), and Jefferson County Public Schools (Jeffco). In June 2007, APA received funding from the Rose Community Foundation to conduct this study on behalf of those districts.

This report is the culmination of the first phase of work to help leaders in these districts attract and retain teachers in their hard-to-staff schools. A potential second phase of work can involve additional support to each district in implementing specific strategies that leaders believe will be most effective for their hard to staff schools. Such strategies, identified in detail in this report, include a variety of ideas surrounding teacher working conditions, school leadership, and other practices that teachers in high performing, highly impacted schools around the country say are important to attract and retain highly qualified teachers, which is one basis of their success.

The timeliness and importance of this work are clear. In fact, leaders across the three districts agree that attracting and keeping teachers in their hard-to-staff schools is one of the most pressing challenges they face. It is also one of the most pressing issues facing policymakers and other education leaders across the country, where its urgency is magnified by numerous factors including increased federal and state performance requirements and adequate yearly progress expectations, research confirming that teachers are critical catalysts of student learning, and federal policies requiring every class to be taught by a "highly qualified" teacher. When these factors are combined with growing evidence that, both nationally[1] and in Colorado[2], students in the hardest-to-staff schools are more likely to be taught by an inexperienced teacher, it is not surprising that policymakers and education leaders are increasingly focused on what it will take to attract and keep well-qualified staff.

To date, however, much of the research in this area has focused on what it would *hypothetically* take for teachers to transfer to a hard-to-staff school.[3] This research is useful, but the focus of the current effort is to go beyond the hypothetical and to delve

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[1] *America's Challenge: Effective Teachers for At-Risk Schools and Students*, National Comprehensive Center for Teacher Quality (2007). http://www.tqsource.org/publications/NCCTQBiennialReport.php
[2] *Shining the Light: The State of Teaching in Colorado*, The Alliance for Quality Teaching (2006). http://aqt.civicore.com/Modules/Resources/Resources/65.pdf
[3] *Recruiting and Retaining Teachers in Alabama: Educators On What It Will Take to Staff All Classrooms with Quality Teachers*. The Center for Teaching Quality, (2006). *Poor Working Conditions Make Urban Schools Hard-to-Staff*, University of California All Campus Consortium on Research for Diversity (2005).

directly into those schools that have achieved high performance while serving large percentages of at-risk students and to examine the practices and programs that help attract teachers to those schools and play a role in keeping them at the school.

As discussed further in the Methodology section of this report, APA's approach to the current work was designed around the following logic:
1. Many of the hardest to staff schools, both locally and nationally, are those which serve large percentages of economically disadvantaged children.
2. Research indicates that teacher quality is one of the strongest single predictors of student success.
3. If there are schools around the country which have shown significant performance success while serving high percentages of economically disadvantaged students, it can be particularly instructive to learn how these schools attract and retain their teachers.

Following this logic, APA designed a methodology for identifying high performing schools around the country that serve high percentages of disadvantaged children. Once identified, APA designed a Web-based survey for these schools' teachers and followed up the survey with telephone interviews of their school leaders. The goal of both the survey and interviews was to understand the specific practices and programs in place at these schools that might be transferable to schools in Colorado and elsewhere.

> *The goal of APA's teacher survey and principal interviews was to ascertain the practices and programs that are most important in attracting teachers, in encouraging them to stay, and in producing positive working conditions and a productive work environment.*

In carrying out this work, APA wishes to note that it was informed and guided by both district and teacher union leaders from APS, DPS, and Jeffco. Such leaders reviewed documents, participated in meetings at key stages of the work, and provided valuable insight, input, and advice. In particular, APA would like to thank the following local leaders for their assistance and participation:

From Aurora:
- Kari Allen, Aurora Chief Personnel Officer;
- Lisa Escarcega, Aurora Director of Assessment and Research;
- Brenna Isaacs, President of the Aurora Education Association.

From Denver:
- Carla Anthony, DPS Human Resources Director;
- Brad Jupp, DPS Senior Advisor
- Kim Ursetta, Denver Classroom Teachers Association President.

From Jefferson County:
- Carol Eaton, Jeffco Executive Director for Assessment and Research;
- Nancy Henderson, Jefferson County Education Association President;
- Amy Weber, Jeffco Director of Human Resources.

By securing the participation and input of these local leaders, the project places itself on firmer footing for recommendations to be implemented in Denver-area schools in a second phase of work. The next section of this report provides detail on the methodology outlined above for conducting this study.

II. METHODOLOGY

The methodology APA used in carrying out its work and developing this report was divided into four key pieces:

1. Secure support and participation of Denver area district and union leaders
2. Identify target schools across the nation to include in the study
3. Survey teachers in identified schools
4. Interview school leaders in identified schools.

1. Securing Support and Participation of Denver Area District and Union leaders

Prior to undertaking the current work, it was important to ensure that there was a sufficient level of interest in the Denver metro area to address teacher staffing issues in schools with high percentages of economically disadvantaged students. In APA's experience, it is important when conducting work of the type involved with this project to ensure the early and continued participation of the leaders from those constituencies most likely to have a role in implementing or carrying forward projected recommendations. In this case, it was important that the interest and participation of both district and teacher union leadership be secured.

The level of response from all three Denver-area districts and teacher unions was strong, and APA received letters of support from each district, including a commitment to provide staff time to participate in meetings and review materials.

To this end, APA identified the three largest districts in the Denver metropolitan area – Aurora Public Schools (APS), Denver Public Schools (DPS), and Jefferson County Public Schools (Jeffco) – as target beneficiaries for the current work. Each of these districts contain schools now considered "hard to staff." APA reached out to the superintendents and union leaders in each district to gauge their interest and, if possible, obtain their participation and support.

The level of response from all three districts and teacher unions was strong, and APA received letters of support from each superintendent, including a commitment to integrate the study's findings into ongoing discussions about how to attract and retain teachers in hard to staff schools. Superintendents also agreed to provide in-kind staff time to participate in meetings and review materials provided by APA throughout the course of its work.

Once participation of district and union leaders was secured, APA began work identifying target schools across the country to include in the study. To aid in this work, a meeting was convened in August 2007. At this meeting APA:

- Received input on the scope of the hard to staff school problem in each district
- Listened to perceptions of key reasons for why schools are hard to staff
- Discussed current policies and practices in each district that support or hinder staffing challenges in hard to staff schools

- Discussed schools considered hard to staff in each district, including any that have had success with recruitment and retention of teachers.
- Received district and union input with regard to identifying target schools to study around the country.
- Received input regarding the primary areas of interest to address in APA's teacher survey.

Following the August meeting, APA began the process of identifying potential schools around the country to conduct a teacher survey and principal interviews.

2. Identify Target Schools Across the Nation to Include in the Study

To accomplish this work, APA took several key steps:

a. Established a group of national-level education experts to serve in an advisory capacity.
b. Conducted an extensive review of data on schools across the country.
c. Obtained further feedback and input from the participating Denver-area district and union leaders.

In particular, APA looked to identify schools with:
1) High percentages of economically disadvantaged students; and

2) Overall standardized test scores in reading and math that met or exceeded the statewide average.

With regard to the first step, APA secured the input of several national policy experts on teacher quality and hard to staff schools. These policy experts were tapped in order to get advice in identifying hard to staff schools that have undertaken innovative practices to attract or retain teachers and who have also shown significant performance success. The experts also provided assistance in reviewing draft iterations of APA's teacher survey discussed in further detail below. The experts with whom APA consulted included:

- Tim Daly, President of the New Teacher Project
- David Duvall, Executive Director of the Colorado Education Association
- Eric Hirsch, Director of Special Projects at the New Teacher Center at the University of California at Santa Cruz and former Executive Director of the Center for Teaching Quality
- Todd Ziebarth, Vice President of the National Alliance for Public Charter Schools.

APA used the input provided by these experts to identify a number of target districts across the country and conducted extensive Web-based research to identify the demographic and performance characteristics of specific schools in these districts. To facilitate this work, APA reviewed data from Greatschools.net, the National Center for Educational Achievement, the National Center for Education Statistics, and Schoolmatters.com. In particular, APA looked to identify schools with: 1) high percentages (typically 70% or more) of economically disadvantaged students; and 2) average standardized test scores in reading and math that met or exceeded the statewide

average. The proxy used to identify economically disadvantaged students was the percentage of students enrolled in federal free and reduced price lunch programs.

In general, APA found that schools meeting these two requirements were few and far between, especially at the middle and high school levels. For these grade spans in particular, several schools were selected based on input from the national policy experts who had insights into schools or districts that had innovative methods in place to attract or retain teachers. As shown in Table 1 below, the result of these efforts was to identify 40 potential schools across 10 states, including 28 elementary schools, 1 5-8 school, 3 middle schools, 2 middle/high schools (grades 5-12), and 6 high schools. The schools also included a mix of both traditional and charter schools.

<table>
<tr><td colspan="4">TABLE 1
INITIAL LIST OF POTENTIAL SCHOOLS</td></tr>
<tr><td>State/Cities</td><td># Schools</td><td>Grade Levels</td><td>Types of schools</td></tr>
<tr><td>Georgia</td><td></td><td></td><td></td></tr>
<tr><td>Atlanta</td><td>6</td><td>5 elementary, 1 middle</td><td>neighborhood schools</td></tr>
<tr><td>Florida</td><td></td><td></td><td></td></tr>
<tr><td>Miami</td><td>4</td><td>4 elementary</td><td>neighborhood</td></tr>
<tr><td>New Jersey</td><td></td><td></td><td></td></tr>
<tr><td>Newark</td><td>1</td><td>mid/high (grades 5-12)</td><td>charter (Uncommon Schools CMO)</td></tr>
<tr><td>Connecticut</td><td></td><td></td><td></td></tr>
<tr><td>Hartford</td><td>1</td><td>Middle</td><td>charter (Achievement 1st CMO)</td></tr>
<tr><td>Ohio</td><td></td><td></td><td></td></tr>
<tr><td>Toledo</td><td>1</td><td>high school</td><td>Early College HS (choice, no admission criteria)</td></tr>
<tr><td>Cleveland</td><td>2</td><td>1 middle, 1 high school</td><td>Early College HS (choice, no admission criteria); neighborhood middle school</td></tr>
<tr><td>Maryland</td><td></td><td></td><td></td></tr>
<tr><td>Baltimore</td><td>5</td><td>5 elementary schools</td><td>neighborhood</td></tr>
<tr><td>Wisconsin</td><td></td><td></td><td></td></tr>
<tr><td>Milwaukee</td><td>2</td><td>2 Elementary schools</td><td>Neighborhood</td></tr>
<tr><td>California</td><td></td><td></td><td></td></tr>
<tr><td>San Francisco</td><td>3</td><td>3 high schools</td><td>Charter (Envision CMO)</td></tr>
<tr><td>Texas</td><td></td><td></td><td></td></tr>
<tr><td>Austin</td><td>5</td><td>5 elementary schools</td><td>Neighborhood</td></tr>
<tr><td>Houston</td><td>2</td><td>1 mid/high (5-12), 1 PK-6</td><td>Mid/high charter (KIPP), PK-6 neighborhood</td></tr>
<tr><td>Colorado</td><td></td><td></td><td></td></tr>
<tr><td>Denver</td><td>4</td><td>1 high school, 1 5-8, 2 elementary</td><td>2 charter, 2 neighborhood</td></tr>
<tr><td>Pueblo</td><td>4</td><td>4 elementary schools</td><td>4 neighborhood</td></tr>
</table>

At the August 2007 meeting of the Denver-area district and union leaders, APA presented the above list of potential districts and schools in which to conduct teacher surveys and principal interviews. The goal was to narrow the target list to approximately 20-25 schools in 5-7 states upon which APA could focus its work. The meeting also allowed the leaders an opportunity to remove or add potential districts from consideration based

on a variety of factors, including: their knowledge of school district innovations taking place across the country; geographic representation from different regions of the country; the degree to which multiple schools could be identified within a single school district; and the degree to which target school districts might have similar characteristics to the three Denver-area districts in terms of size, urban quality, and student demographics.

As shown in Table 2 below, the result of this work was to identify 26 schools in 7 states that were targeted for APA's teacher survey and school leader interviews. These schools represented multiple grade levels (elementary, middle, and high school). As shown in the table, the Denver-area leaders added several schools in Massachusetts and Virginia to the final target list.

TABLE 2			
TARGET SCHOOLS IDENTIFIED BY DENVER AREA LEADERS			
State/Cities	**# Schools**	**Grade Levels**	**Types of schools**
California			
San Francisco Unified School District	3	3 high schools	Charter (Envision charter management organization)
Colorado			
Denver Public Schools	5	1 high school, 1 grade 5-8, 3 elementary	2 neighborhood elementary schools, 1 charter 5-8, 1 charter high school
Florida			
Miami Dade Schools	4	3 elementary, 1 middle	3 neighborhood schools, 1 charter middle school
Georgia			
Atlanta City School District	5	4 elementary, 1 middle	4 neighborhood schools
Massachusetts			
The Boston Pilot Schools	3	3 high schools	Boston Pilot Schools
Maryland			
Baltimore City Public Schools	4	3 elementary schools, 1 PreK-8	neighborhood schools
Virginia			
Norfolk City Public Schools	2	2 elementary schools	neighborhood schools

3. Survey Teachers in Identified Schools

Once the target districts and schools were identified, APA began the extensive process of securing permission from the districts in other states to conduct research in their schools. This required APA to complete and submit a research application and justification packet for each district or charter school management organization. Once submitted, several districts required a minimum of two months to process the application and provide approval.

During this waiting period, which took place during Fall 2007, APA began the process of constructing its teacher survey. The survey, which is provided in Appendix B of this report, was designed using several sources, including: 1) review by the Denver-area district and union leaders regarding their key areas of interest or concern; 2) review by the national policy experts assembled by APA to provide advice regarding this project; and 3) reviews of teacher working condition studies and surveys conducted by other public policy organizations. For instance, input from the Denver-area district and union leaders indicated an interest in hearing about the importance of mentoring and induction programs, information on the level and types of teacher preparation, and whether teachers planned to stay at their schools long term. Survey items were therefore included to incorporate each of these areas of interest.

While the draft survey was being completed, APA hired a contractor to design a Web-based application to deliver the survey online. The goal in creating an online survey was to make it possible for teachers anywhere in the country to access and answer the questions and to reduce, as much as possible, the time commitment required of participating teachers. Prior to full administration in target schools, APA also ran a test with several Denver-area teachers to gauge the time commitment involved in fully completing the survey. This test indicated the survey took about 20 minutes to complete.

Ultimately, 249 teachers from 16 schools in 6 states participated in APA's survey. States where districts participated included: California, Colorado, Florida, Georgia, Maryland, and Virginia.

While all districts ultimately gave APA approval to proceed with the study in their schools, all also indicated that final permission must be received by the principal in each target school. APA found that, because many of the schools had received local, state, and national recognition for their successes, their teachers were, in many cases, suffering from what several principals referred to as "research fatigue." APA therefore offered several schools small honoraria to participate in the study and to recognize the time that teachers donated to take the survey. APA also sent schools a survey flier to be distributed to all teachers, and followed up with repeated phone and e-mail contacts.

The final survey was administered in January and February of 2008. As shown in Table 3, however, not all schools chose to participate. Of the 26 schools targeted in 7 states, 16 schools from 6 states participated. In particular, six of the ten schools that did not participate were middle and high schools, including all of the Boston Pilot Schools. This meant the survey pool became more skewed toward elementary-level results.

Detailed survey results are provided in Appendix A. These results are also discussed further in the Findings section of this report. In addition, detailed performance and demographic data for each participating school are provided in Appendix C.

TABLE 3 FINAL LIST OF PARTICIPATING SCHOOLS		
State/District	**Grade Span and Type**	**Schools**
California		
San Francisco Unified School District	2 Envision charter high schools	City Arts Technology High School Metropolitan Arts & Technology High School
Colorado		
Denver Public School	1 charter high school 1 5-8 charter 2 neighborhood elementary	Asbury Elementary School Denver School of Science and Technology KIPP Sunshine Peak Teller Elementary School
Florida		
Miami Dade School District	2 neighborhood elementary	Seminole Elementary South Pointe Elementary
Georgia		
Atlanta City School District	3 neighborhood elementary	Capitol View Elementary East Lake Elementary Toomer Elementary
Maryland		
Baltimore City Public Schools	3 neighborhood elementary	Cecil Elementary Dallas Nicholas Elementary George Washington Elementary
Virginia		
Norfolk City Public Schools	2 neighborhood elementary	Oakwood Elementary St. Helena Elementary

4. Interview School Leaders in Identified Schools

Once the surveys were completed, APA began the process of compiling responses and identifying common themes. In March 2008, APA reconvened the district and union leaders from APS, DPS, and Jeffco to discuss the survey process, review the results, and to discuss how the findings could be best integrated into the development of an interview protocol for principals in the schools which responded to the survey.

Based on a review of key survey responses, several areas of interest emerged from the discussion at the March 2008 meeting. These included an interest in exploring through the interview process more thoroughly the nature of leadership in the targeted schools, their educational philosophy, and how teachers are incorporated into key decisionmaking processes. Interest was also expressed in exploring how teachers were inducted or mentored in their districts or schools, how technology played a role in enhancing working conditions, and how teachers were supported in their efforts to assist students struggling to reach academic proficiency.

Armed with input from the teacher survey and the March 2008 meeting discussion, APA extended invitations to all school leaders whose teachers participated in the survey.   In the end, APA conducted ten interviews of school and district leaders throughout the month of April and early May. Table 4 shows the list of those ten individuals who agreed to be interviewed. As the table shows, similar to the survey responses, interview response was weighted heavily toward traditional elementary schools.

TABLE 4 LIST OF SCHOOL LEADER INTERVIEWS		
District	**Interviewee**	**Schools**
Denver Public School	Janet Box, Principal Rich Barret, School Leader	Asbury Elementary School KIPP Sunshine Peak
Miami Dade School District	Omar Riaz, Assistant Principal Melissa Mesa, Assistant Principal	Seminole Elementary South Pointe Elementary
Atlanta City School District	Arlene Snowden, Principal Tonya Sanders, Principal	Capitol View Elementary Toomer Elementary
Baltimore City Public Schools	Roxanne Forr, Principal Iris Murdock, Principal Irma Johnson, Director of Elementary Education	Cecil Elementary Dallas Nicholas Elementary
Norfolk City Public Schools	Sheila Holas, Principal	Oakwood Elementary

Following completion of the interview process, APA began organizing, analyzing, and compiling findings. The key findings which emerged from this work are presented in the next section.

III. FINDINGS

The previous section of this report describes the methodology APA used to bring together Denver-area district and union leaders, to design and implement a Web-based teacher survey, and to conduct a series of interviews with principals and school leaders from across the country. Among the schools that participated in the study (shown in Table 3) there were an estimated 430 teachers and instructional staff available to take the survey. The 249 surveys APA received therefore represented roughly a 58% response rate. Some key characteristics of the respondents included the following:

- Years of experience <u>in the specific school surveyed</u>:
    - o 57% had 3 years or less at that school
    - o 24% had 4-10 years at that school
    - o 19% had 11+ years at that school.
- Years of overall <u>teaching experience</u>:
    - o 23% had 3 years or less
    - o 42% had 4-10 years
    - o 35% had 11+ years
- 80% consider themselves "highly qualified" as defined by No Child Left Behind
- 51% held a master's degree
- Approximately 76% of those who responded received some training from a teacher preparation program through an institution of higher education
- About 12% of those responding had participated in some form of alternative or emergency certification program
- About 9% had some training through the National Board for Professional Teaching Standards
- About 7% had participated in Teach for America.

When the survey data from these respondents was combined with the school leader telephone interviews, several specific findings were identified. APA sought particularly to identify and flesh out those practices of greatest importance to teachers in the highly impacted, yet successful schools that were studied. These practices can be grouped into the following major areas:

1. Increased planning time
2. Grade-level teamwork
3. Shared leadership and teacher input into key decisions
4. School-level flexibility
5. Support for struggling students
6. Technology support.

As discussed below, each of these key areas are first described generally using the combined results of APA's survey, interviews and, where appropriate, other research. After this general description is provided, APA also provides illustrations of how the identified practices are applied in specific schools. APA notes that, due to the much

heavier participation of elementary schools in the survey and interviews, the findings are likely most appropriately applied at the elementary school level.

1. Increased Planning Time

A consistent finding across the schools participating in this study was the importance of creating additional time for teachers during the school day to plan, use data, share ideas, and work with colleagues. In fact, teachers were asked through the survey to rank a series of 20 factors in terms of their importance in creating positive working conditions. As Table 5 reveals, three of the top five responses to this question (common planning periods, early dismissal days to allow for planning and development, and "duty free" schedules) were related to ensuring that teachers have adequate time to plan, collaborate, work with performance and assessment data, and learn from each other.

	TABLE 5 Top Five Factors Identified by Teachers as Important in Creating Positive Working Conditions
Rank	Response
1	School leadership
2	Common planning periods with content or grade level colleagues
3	Availability of technology
4	Teacher involvement in important school decisions
5 (tie)	Early dismissal days to allow for planning and professional development
5 (tie)	"Duty free" schedule (no bus, lunch, etc., duties for teachers)

To determine whether any differences in priority exist among teachers with different levels of experience, APA analyzed the survey results by three groups of teachers: 1) those with 0-3 years of experience; 2) those with 4-10 years; and 3) those with 11 or more years. This analysis revealed that the importance of the time-related factors highlighted in Table 5 remain equally strong over time and that they are highly valued by both new and veteran teachers alike.

The importance to teachers of having adequate time to be effective is also supported by several recent studies of teacher working conditions conducted around the country.

The importance to teachers of having adequate time to be effective is also supported by several recent studies of teacher working conditions conducted around the country by organizations such as the Center for Teaching Quality. These studies find that improving working conditions in this manner can have a stronger impact than monetary incentives in attracting teachers to hard to staff schools. For example, a 2006 survey of 3,300 educators in Mobile, Alabama found that, while financial incentives are important, non-financial incentives such as guaranteed planning time have more impact on the potential recruitment of teachers to hard to staff schools. [4]

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[4] *Recruiting and Retaining Teachers in Alabama: Educators On What It Will Take to Staff All Classrooms with Quality Teachers.* The Center for Teaching Quality, (February 2006).

Similarly, a 2006 survey of more than 75,000 licensed educators in North Carolina suggests that sufficient planning time is a key ingredient to stemming teacher attrition in that state.[5] A further analysis of the North Carolina data found that those teachers in the state's lowest performing, hardest to staff schools were much more likely than their peers in other schools to cite lack of time to plan and collaborate as a key contributor to poor working conditions in their schools.[6] Drawing upon the results of these studies, North Carolina created a teacher working conditions toolkit which includes recommendations regarding the importance of protecting teachers from non-essential duties that interfere with teaching and of structuring the school day to allow sufficient time for planning and collaboration.[7]

How do studied schools maximize available time for their teachers?

Schools in the current study used a variety of approaches to provide additional time for their teachers during the school day. Several of the schools not only ensured that added time during the day was available, but also created incentives for teachers to participate in additional common planning or instructional periods during the summer or before and after school. Some specific examples of strategies used to provide added time to teachers included:

> *Both new and veteran teachers place a high value on creating additional time during the school day for teachers to plan, use data, share ideas, and work with colleagues.*

- Almost all schools ensured their teachers were freed from having to cover lunch, recess, hall, or bus pickup and drop off duties. Such duties were typically covered by volunteers, paraprofessionals, or aides. Principals indicated that such "duty free" scheduling not only allowed teachers more time during the day to plan, grade, and communicate with parents and other staff, but was a sign of respect for teachers' time as well. APA's survey data also indicate that, the more experienced the teacher, the higher the importance of such duty free scheduling is to creating positive school working conditions.

- Using student time in classes such as art, physical education, music, and foreign language to create at least three hours of teacher planning time per week in addition to a 45 minute lunch and daily 30 minute planning period.

- In exchange for teachers agreeing to shorten their lunch period by 15 minutes each day, arrange the schedule to provide teachers with five additional common planning periods per week.

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[5] *Teacher Working Conditions Are Student Learning Conditions: A Report on the 2006 North Carolina Teacher Working Conditions Survey*, The Center for Teaching Quality, (2006).
[6] *Teacher Working Conditions in Turnaround Team High Schools*, The Center for Teaching Quality, (2006).
[7] Teacher Working Conditions Toolkit: http://www.teacherworkingconditions.org/time/index.html

- Establish early dismissal days to provide a block of common time for teachers to work. Some schools offered early dismissal days once per week to provide teachers with a 3-4 hour block of planning time. Others had such early dismissal once per month.

- Arrange substitute teachers or other school staff members to cover classes so teachers have added time to meet in teams and to observe other classrooms. Use of such substitutes can help avoid violation of teacher contract requirements that protect teacher planning time during the school day.

- Create a 1-2 week summer workshop for teachers to meet and conduct planning for the coming year. In some cases, teachers are provided stipends for participating in this program.

Some schools offered early dismissal days once per week to provide teachers with a 3-4 hour block of planning time.

- Schedule "mid-course reviews" every four weeks where teachers get an extra half day to examine data and develop plans to specifically address the needs of students falling behind academically. Teachers also use this time to meet with instructional coaches and specialists depending on the needs of the specific class.

While the emphasis on added time for teachers was one of the strongest findings from APA's survey and interviews, equally important was the way in which the schools utilized this added time. The approach to using the added time – across almost all schools – was very consistent and is discussed further in the following section on grade level teamwork.

2. Grade-level Teamwork

Another of the clearest findings that emerged from APA's survey and interview process was the critical importance of teachers working together to solve problems and support each other in their work. In fact, on survey questions asking teachers to rank a series of factors that initially attracted them to their schools and that encouraged them to stay, the number one response – higher than that assigned to the school principal – was the school's educational philosophy (see Tables 6 and 7).

TABLE 6 Top 5 Factors Identified by Teachers as Important in Initially Attracting Them to Their School	
Rank	Response
1	Educational philosophy
2	School Principal
3	School culture
4	School's reputation
5	Level of teacher involvement in important school decisions

Due to the importance of this factor to teachers, APA spent significant time during interviews with school leaders fleshing out each school's educational philosophy. By far the most prevalent response from these interviews was the importance of creating a school-wide philosophy of building extensive and consistent collaboration among teachers and instructional leaders. In the words of one school principal, "teachers never feel isolated or alone in our school." Indeed, as shown in Table 7, educational philosophy again scores as the top priority on a list of factors that most influence teacher decisions to stay at their school. As might be expected in schools that emphasize such collaboration, colleagues and adequate planning time also play a critical role in encouraging teachers to stay.

TABLE 7 Top 10 Factors Important in Encouraging Teachers to Stay at Their School	
Rank	Response
1	Educational philosophy
2	School Principal
3	Flexibility to design and tailor instruction
4	School culture
5	School Safety and discipline
6	Colleagues (fellow teachers)
7	Resources & supports for struggling students
8	Level of teacher involvement in important school decisions
9	Amount of time allotted for planning
10 (tie)	School size
10 (tie)	Effective use of data to drive instruction

Across the schools APA studied, the primary approach used to build such teacher collaboration is the creation and ongoing support of *grade level teacher teams*. Such grade level teaming in fact pervades the entire life cycle for teachers in these schools – from hiring and induction to professional development and master teaching. And, as discussed earlier, to make such grade level teamwork possible (and not a potential added drain on teachers' time to grade and work with students) the schools APA studied engaged in significant efforts to create added time during the school day. In fact, added time created through creative scheduling, the use of substitutes, and early release days were almost universally used to allow grade level or content area teacher teams to work together.

Grade level teaming pervades the entire life cycle for teachers in these schools – from hiring and induction to professional development and master teaching.

Such common planning time is clearly very popular with teachers in these schools. As shown in Table 5, common planning periods with grade level or content area colleagues ranked second only to school leadership in terms of importance in the creation of positive school working conditions. Furthermore, survey data indicate that the importance of common planning time continues to grow as teachers gain more experience. As Table 8 demonstrates, new teachers (those with three or fewer years of experience) rank common planning time with content area or grade-level colleagues fourth highest among a series of potential factors. These new teachers give an average response of 3.18 on a 4-point scale (with 4 representing the highest level of importance). Both this average response and the overall ranking rise even further as the years of experience increase for teachers taking the survey. This trend indicates an increased appreciation for this educational strategy as teachers progress in professional experience.

The importance of common planning time with content or grade level colleagues continues to grow as teachers gain in experience.

TABLE 8
Importance of Common Grade Level Planning Periods
to Creating Positive Working Conditions
(By years of teacher experience)
Scale: 1 = Not important, 4 = Very Important

Teacher Experience	Average Response	Overall Rank Among Factors
0-3 Years	3.18	4
4-10 Years	3.46	2
11+ Years	3.51	2

How do studied schools utilize and organize grade-level teams?

Schools rely on grade level teams to accomplish a variety of core functions, including:

- *Input on new teacher hiring*: Grade level teacher teams participate in the hiring process for candidates who will work in that grade. This ensures that candidates are aware of the school's team-based philosophy, and that they are a good fit for the group of professionals with whom they will most often be working. Grade

level teams participate in interviews, serve as hiring committee chairs, accompany principals to hiring fairs, and conduct informal lunches or meetings with finalist candidates.

- *Delivery of new teacher induction*: New teachers are typically paired with a mentor teacher from their grade level team for 1-2 years. This mentor process, which is typically separate from any district induction program, not only helps incorporate the new teacher into the school, but also quickly indoctrinates them into the grade-level team culture.

- *Delivery of professional development*: Grade level teams meet to discuss developmental needs and share these directly with the principal or other instructional leader who sits in on team meetings. Appropriate professional development and training is most often provided in grade level planning time rather than across the entire staff. Where appropriate, a master teacher from within the grade level team can lead the professional development session.

- *Development and refinement of common lesson plans*: A key strength of the grade level teams is their capacity to strengthen teachers' abilities to work collaboratively in crafting and refining outstanding lesson plans matched to the overall curriculum and academic standards. Lessons are commonly developed during grade level team meetings and are then modeled, observed, and further polished. In some instances, model lessons are taught in succession by each teammate who is observed by the other teammates and instructional leaders who provide advice and further potential refinements. By developing this framework, teachers are supported by a built-in library of effective lessons. As co-authors of these lessons, they also feel more empowered to tailor them as needed to meet the needs of students in their particular classrooms.

> *Teachers feel supported by a built-in library of effective lessons. As co-authors of these lessons, they also feel more empowered to tailor them as needed to meet the needs of students in their particular classrooms.*

Several strategies are used consistently across schools in terms of how grade level teams are organized and supported:

- *Strong leadership is provided to each team*: Grade level teams are almost always attended and supported by an instructional leader or master teacher. The form of such leadership can differ from school to school. For instance, in some districts a full time master teacher – who does not have classroom instructional responsibilities, is provided to each school. This is typically an experienced teacher who participates in grade level team meetings to offer guidance, input, and support and who also assists with building class management skills, with the organization and interpretation of student performance data, and with instructional tailoring to meet specific student needs. In most of the schools studied, the principal or assistant principal also acts as an instructional leader and

participates in grade level team meetings. This allows teachers direct access to school leaders in terms of communicating any concerns or needs that might arise. It also builds an atmosphere of strong collaboration and trust between the school leader and their teachers.

- *Collaboration is enhanced by providing added time*: As mentioned previously, principals in the studied schools made it a top priority to provide grade level teams the opportunity during the school day or week to plan together as well as potentially over the summer. Principals were also flexible in providing ad hoc time when needed to further support team goals. For example, principals ensure that, if needed, substitute teachers are provided to allow grade level team members to observe another teammate teaching a model lesson.

- *Teams are also used to build teacher connections across grade levels.* Once the philosophy of grade level teamwork is firmly entrenched, teams are used to enhance each others' efforts throughout the school. Time can be provided either over the summer or during the school year for teams from successive grades to come together and share insights, lesson plans, and advice. For instance, teachers on the second grade team can meet with those from the first grade team to review the concepts that were taught and mastered, and to identify likely areas of student need for their incoming classes.

As several principals noted in our interviews, prior to the institution of a strong philosophy of utilizing grade level teams, teachers tended primarily to work in isolation. In failing schools, such isolation can breed mistrust among teachers and school leadership that leads to low performance, low morale, and general dissatisfaction. Through a consistent emphasis on grade-level teaming and the participation of school instructional leaders on these teams, the principals in these schools send a strong message to their staffs that teaching should not be an isolated profession. Instead, these schools have built an atmosphere of strong collegiality where teachers benefit and learn from each other. Perhaps most importantly, by sharing their experiences and concerns on a regular basis, teachers inherently begin to take what one principal characterized as "ownership over not just the success of the children in their own classrooms, but of all children in the school."

Through a consistent emphasis on grade-level teaming and the participation of school instructional leaders on these teams, a strong message is sent that teaching should not be an isolated profession.

3. <u>Leadership</u>

As shown in Tables 5-7 in this report, school leadership plays a critical role in attracting and retaining teachers and in shaping positive teacher experiences in the schools APA studied. The importance of this finding is also supported by a growing body of national research regarding the important impact of principals and superintendents on student learning.[8] In fact, research suggests that the impact of such leadership is second in importance among school-related factors only to teacher quality, and that the impact of leadership is highest in schools that have the highest levels of student need.[9]

In delving deeper into the reasons why teachers in APA's survey ranked school leadership and their principals so highly, APA sought to focus not on the personal characteristics or charisma of the school leaders in our study. For, while these are clearly important commodities to success, they are not as easily replicated. Instead, APA sought through its interviews with school leaders to identify specific practices and leadership philosophies that surface across schools and that show a correlation with teacher priorities identified in the teacher survey. Such practices and philosophy are more easily replicated, and may be more useful from a policy perspective for APS, DPS, and Jeffco leaders.

> *APA sought to identify specific practices and leadership philosophies that surface across schools and that show a correlation with teacher priorities identified in the teacher survey.*

APA identified several broad leadership themes through this effort:

1. Providing instructional leadership and support.
2. Empowering and involving teachers in key decisions.
3. Fostering a culture of safety and discipline.

First and foremost in the schools APA studied is the fact that principals play important roles in supporting the development of strong instruction in their schools. Principals therefore visit classrooms every day, and regularly offer input, encouragement, and advice to teachers. In addition, principals play a key role in establishing an overall emphasis on use of data to drive instructional decisions and in focusing on student achievement in meeting academic standards. They therefore help teachers decide on the number of benchmark tests that will be administered to students and overall strategies for focusing on specific areas of need. For instance, the leadership in one school has established a process for administering benchmark tests once every two weeks in math, reading, science, and writing to match the areas addressed in their statewide assessments. This was a strategic decision that meant other subject areas, such as social studies, are not as heavily addressed until after assessments are administered.

School leaders also either sit directly in grade level team meetings, have a designated master teacher in each grade level who leads those meetings and provides the principal with regular feedback, or have a team of school-wide instructional leaders (such as

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[8] *The Progress of Education Reform: District and School Leadership*, The Education Commission of the States (2005). http://www.ecs.org/clearinghouse/58/30/5830.pdf
[9] *Id*.

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reading and math specialists or school-wide master teachers) who the principal selects to help lead grade-level team meetings. This approach ensures the principal is constantly connected to the work of their teachers, and is in a strong position to lend support and assistance when needed. Principals and other instructional leaders in the schools also regularly examine classroom to classroom data to identify teachers that might need more instructional support.

While providing such instructional leadership is a key aspect of principals in the schools APA studied, equally important was the concept of "shared leadership" across the school. This primarily expresses itself through a consistent emphasis on empowering and involving teachers in key decisions regarding their development and the direction of the school. As shown in Table 9, the importance of this leadership strategy was consistently expressed by teachers across three key survey questions.

TABLE 9 Importance to Teachers of Being Involved in Key School Decisions	
Teacher Survey Question	Overall Rank Among All Factors
Importance in attracting teachers to the school	5
Importance in choosing to stay at the school	8
Importance to creating positive working conditions	4

How is leadership shared with teachers in the studied schools?

Principals in the studied schools sought to empower their teachers in several ways, including:

- *Flexibility to design instruction.* Principals send a clear message that, as long as their students meet academic standards, teachers are rewarded with great flexibility in determining how to present the curriculum. Such flexibility to design and tailor instruction (as shown in Table 7) ranked third – just behind the school principal – in terms of importance to teachers in choosing to stay at their school.

- *Use of grade level teams to support effective instructional tailoring.* Principals provide support to grade level teams and empower them to create a library of lesson plans and lists of work products and skills that students must master on a common grade level schedule. They then allow individual teachers on each team to decide how best to tailor these lesson plans for their individual classes.

The flexibility to design and tailor instruction ranked third – just behind the school principal – in terms of importance to teachers in choosing to stay at their school.

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- *Creating a common school vision.* Grade level teacher teams can be used to develop an overall vision and mission statement for the school. In one school APA studied, this statement hangs in every classroom and is revisited through team discussions every year. It helps create teacher ownership and buy-in to the overall mission of the school.

- *Input on teacher hiring*: As discussed earlier, grade level teacher teams typically have significant input in the hiring process for candidates who will work in that grade.

- *Input into professional development*: Principals in the studied schools use highly organized tools to ascertain their teachers' development needs. They either survey their teachers with an electronic or paper survey, conduct grade level focus groups, or meet with teachers individually to identify top developmental needs. These formal processes allow teachers to self-asses their own strengths and weaknesses and to select appropriate focus areas for further development. If the principal sees areas emerging across the school, broad professional development is delivered to the entire staff. However, such development is also frequently tailored to a specific teacher or grade level team's needs. This degree of input into the process ensures teachers have a sense of ownership over their own development and provides a sense of trust and empowerment over their careers.

> *Principals in the studied schools use highly organized tools – including surveys and focus groups – to ascertain their teachers' professional development needs.*

In addition to the leadership qualities discussed above regarding the provision of instructional support and involving teachers in important school-level decisions, a third leadership quality which emerged from APA's interviews was the ability to foster a school-wide culture of respect and discipline across teachers, administrators, parents, and students. As Table 10 shows, this factor ranked very high on the teacher survey in terms of factors important to keeping them at their school.

TABLE 10	
Importance of Establishing Culture of Safety and Discipline	
in Encouraging Teachers to Stay at Their School	
Rank	**Response**
1	Educational philosophy
2	School Principal
3	Flexibility to design and tailor instruction
4	School culture
5	School Safety and discipline

School principals used a variety of methods to achieve this culture:

- *Publicly rewarding students for positive behavior.* Principals found creative ways to recognize and reward students who exhibit model behavior. Examples used in the studied schools include:
    - Creation of a process for teachers to nominate students once a month who are performing well academically and as "model citizens." These students are then recognized by a regional school board member at a reward ceremony each month.
    - Creation of a "news" show broadcast by students each day either via closed circuit television or school-wide smart boards. These shows are used particularly to recognize outstanding students in the school.
    - Allowing students to earn points for good behavior that qualify them to participate in field trips or other popular activities.

Several of the schools studied had access to full time counselors or therapists in their buildings.

- *Use of a full time counselor.* Several of the schools studied have access to full time counselors or therapists in their buildings, and principals use these personnel to both minimize and address student behavior issues. For instance, in one school studied a full time counselor coordinates a student "RAP" program where, several times a week, students meet to discuss the social and emotional issues they face every day.

- *Direct outreach to parents.* To help prevent problems in schools and to clearly communicate behavioral expectations, principals used a variety of tools:
    - Direct home visits from the principal or a school level social worker.
    - Parent surveys to identify top issues of concern to families whose children attend the school.
    - In-school, monthly "parent academies" designed to bring parents into the school and to offer information to help address a variety of issues identified as priorities through a parent survey.
    - Creation of a school expectations document which parents must read and sign before admitting their child to the school.
    - Requiring parents to sign homework logs each night to ensure they help track student work habits.
    - Placing all assignments and homework schedules online so parents can access and review teacher expectations.

Use of an "Experience Corps" program to bring retired citizens in to work with students reduced suspensions and disciplinary referrals by 50% in its first year.

- *Use of volunteers to ensure young children have more access to adults in the classroom.* Several principals reported the important role which reaching out to community volunteers can play in building an atmosphere of safety and respect in their schools. The successful efforts of one principal to reach out to surrounding churches, businesses, and a local university in Baltimore

to start this program led to the adoption across the entire district of an "Experience Corps" program designed to bring retired citizens into schools to work with students. Volunteers in this program receive training from teachers on how to work with students and to provide direct tutoring assistance. Many classes now have 1-2 of these volunteers three days a week, and the principal reported that the enhanced interaction with adults reduced suspensions and disciplinary referrals by 50% in the program's first year. Throughout the district, 99% of teachers have indicated that students who worked with Experience Corps members showed significant academic progress.[10]

4. School-level Flexibility and Decisionmaking

The importance of school districts providing significant decisionmaking flexibility at the school level surfaced as an important priority through both the teacher survey and school leader interviews. Such flexibility was expressed in several important ways:

> *Principals emphasized the importance of feeling empowered by the district to seek and receive permission to modify or depart from district-mandated curricula and materials when necessary to meet the needs of their students.*

1. Finding and hiring new teachers
2. The ability to break from district-mandated curricula and programs when needed
3. The flexibility to use a portion of funds and resources at the principal's discretion.

APA's teacher survey results clearly establish the importance of placing primary hiring authority at the school level. As shown in Table 11, the top two most important factors to teachers in terms of hiring are that both applicant recruiting and screening and final hiring decisions remain at the school level. These two responses ranked well above the other possible responses and well above centralized district applicant recruiting or screening.

TABLE 11 Top Factors in Importance to Finding and Hiring New Teachers	
Rank	**Response**
1	Final say in hiring decisions at school level
2	School-level recruiting/screening of applicants to be interviewed
3	Timing of hiring process
4	Involvement of teachers in hiring process
5	Ability to hire candidates after their student teaching experience in your school

The strength of these results is not surprising when one considers the degree of team-oriented work in which teachers in the studied schools typically engage. Because they

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[10] The Experience Corps program now operates in 19 cities across the country. For more information on this program, visit: http://www.experiencecorps.org/baltimore/results.cfm and http://www.experiencecorps.org/news/releases/2004_4_07_JHU.html .

are so strongly oriented to such teaming, these teachers find it critically important that they have the ability to ensure that new colleagues brought into the school are a good fit for the educational philosophy and for the extensive teamwork in which they will be expected to participate. Under such an environment, the district's role in the screening and hiring process is understandably diminished.

Principals in APA's study also emphasized how important it was to their success to feel empowered by the district to seek and receive permission to modify or depart from district-mandated curricula and materials when necessary to meet the needs of their students. For example, one principal APA interviewed indicated their school had requested permission to implement Core Knowledge as a reform program even though the district had initially required use of a different approach. The school-selected approach not only had the benefit of full support from the staff, but it was also more tailored to the academic needs of that school's students. This was critical because the principal and teachers had identified student needs in their school that differed from those of many other students in the district.

As one principal indicated, "The fact that we are able to look at our students and the data we collect and move outside the system's suggested mandates to meet the needs of our kids is critical." In most cases, principals reported their school districts were very supportive of such school-level flexibility as long as the school produces positive performance results.

School leaders likewise indicated the importance of flexibility in developing their own creative scheduling practices, as well as school level induction and professional development programs to supplement district offerings and to tailor these programs to the needs of their school. As discussed previously, teacher input into and development of school-level professional development organized around grade level teams and teacher self-assessments of need are particularly important to the successful professional growth of teachers. With regard to teacher induction, some principals believed current district programs were too generic and that the school level mentoring and induction was more effective in terms of integrating new teachers into their schools. With regard to creative scheduling, principals indicated that school-level flexibility was critical in allowing them to arrange staff and scheduling in order to create additional time for teachers to work together in grade level teams, to observe other teachers' classrooms, and to deliver tailored professional development and training as needed.

Principals report that flexibility from the district allows them to better tailor resources and staffing to fit the needs of their school and contributes significantly to their effectiveness as school leaders.

Principals also reported the importance of being granted discretionary power from the district with regard to staffing, funds, and other resources. The level of such discretion varies by district. Districts may provide guidance regarding certain staffing levels which must be maintained but allow principals discretion in hiring staff to fit the specific needs of their school. In some cases schools are granted discretion in spending a certain percentage (around 30% in two schools, for example) of their overall budget. In other cases schools are given complete discretion over their Title I funds to use as they see

fit to meet the needs of their students. The input APA received was that such flexibility from the district allows principals to better tailor resources and staffing to fit the needs of their school and contributes significantly to their effectiveness as school leaders.

5. Supports for struggling students

In keeping with the general philosophy of ensuring that teachers are not left in isolation, the studied schools have implemented strong frameworks for supporting teachers with students that struggle academically. Such resources and support for struggling students also ranked high on APA's teacher survey in terms of factors important to teachers in choosing to stay in their schools. And, as Table 12 shows, this importance appears to grow stronger with teachers over time.

TABLE 12 Importance of Providing Resources and Supports for Struggling Students on Teachers Choosing to Stay at Their School (By years of teacher experience) Scale: 1 = Not important, 4 = Very Important		
Teacher Experience	**Average Response**	**Overall Rank Among Factors**
0-3 Years	3.33	6
4-10 Years	3.23	6
11+ Years	3.40	2

How do studied schools provide added support for struggling students?

Such support takes several common forms across schools:

- *Intensive use of data* through weekly, monthly, and quarterly assessment data to identify students falling behind plays a key role in the studied schools' success. Grade level teams work together to analyze data. Teams also receive outside data analysis support either from a data specialist, through district-provided data summaries, or through other instructional leaders in the school building. Data is used to identify specific student weaknesses and to create an instructional plan to address these weaknesses.

- A *tiered strategy that escalates interventions* if the student continues to fall behind despite modifications to classroom instruction. Such interventions can include referral to a student support team which might include the classroom teacher, principal, and counselor or social worker. This team assesses the need for providing additional support and can recommend provision of extra paraprofessional or specialist support, or

> *Extended learning time for struggling students is provided through a variety of strategies, including mandatory tutoring before or after school.*

added tutoring services. The team can also serve as a conduit for reaching out to parents to gain their input and to explain what the data shows regarding their child's progress.

- *Extended learning time* for struggling students is provided through a variety of strategies:
    - Before or after school tutoring several times per week. In some schools such tutoring is mandatory for students that struggle academically.
    - Requiring students to attend tutoring in lieu of elective classes such as music and art until they become academically proficient.
    - Instituting a half-day Saturday school program to prepare struggling students for standardized testing.
    - Offering additional pay to teachers for participating in extended tutoring hours.

6. Technology Support

An interesting finding from the schools APA studied was the important role which technology appears to play in building positive school working conditions. In fact, according to our survey findings, technology ranks just below school leadership and common planning periods in terms of its importance in creating positive teacher working conditions. As shown in Table 13, the importance of technology also remains strong regardless of teacher experience.

<table>
<tr><td colspan="3">TABLE 13
Importance of Technology
to Creating Positive Working Conditions
(By years of teacher experience)
Scale: 1 = Not important, 4 = Very Important</td></tr>
<tr><td>Teacher Experience</td><td>Average Response</td><td>Overall Rank Among Factors</td></tr>
<tr><td>0-3 Years</td><td>3.20</td><td>3</td></tr>
<tr><td>4-10 Years</td><td>3.29</td><td>3</td></tr>
<tr><td>11+ Years</td><td>3.41</td><td>3</td></tr>
</table>

Principals interviewed by APA indicated that technology plays an important role in several ways for teachers. First, with proper training and support, use of technology in the classroom can be very effective in grabbing and maintaining student attention. It can also allow teachers to incorporate a wide variety of new information sources into their lessons, with which children can more readily relate. Second, teachers can use technology to consistently deliver lessons created electronically through their grade-level teams. Such lessons can then be tailored electronically as needed by the teacher to demonstrate a specific concept for their class. Third, electronic lessons can be posted or shared online with other teachers across the district, or to allow parents access to the types of lessons and expectations taking place in their children's classes. Fourth,

technology can be used to help teachers working in teams to analyze performance data and to create model lesson plans. And fifth, technology can help enhance communication across the entire school staff, parents, and students.

What does technology look like in the studied schools?

- *Laptops.* In five of the nine schools APA interviewed, all teachers are provided with laptop computers. In a sixth school, all instructional leaders and special education teachers are given laptops. In the remaining three schools all teachers have their own desktop computer and leaders in those schools indicated laptops would be a very valuable technology to add. In the schools that have laptops, these devices play an important role in enhancing how teachers work together in teams to analyze data, design common assessment tools, and create grade level lesson plans.

  > *In five of the nine schools APA interviewed, all teachers in the school are provided with laptop computers.*

- *Multiple (typically 5-7) networked desktop computers in each classroom.*

- *Smart boards.* Five of the nine schools utilize smart boards to bolster instruction. In one school smart boards are provided in every classroom and are used to deliver lessons as well as a student-created, morning news show each day. To promote use of the technology, the principal provided teacher training and a library of electronic, smart board lessons. The principal also required that each teacher conduct three lessons per week using the smart board. This requirement eventually led many teachers to use the technology every day in their classes.

- *Personal input devices* to generate rapid, ongoing assessment data of student performance.

- *Document cameras and LCD projectors* which allow teachers to electronically deliver lessons so that students can follow along visually.

- *Stand alone computer labs, mobile computer labs, and laptop carts* with enough computers to accommodate entire classes at once.

- *Wireless or Internet access* in every classroom.

- *Web-based gradebook sites and software* to provide students and parents easy access to assignments and grades and to allow parents to generate reports at any time regarding student progress.

When combined with regular training opportunities from technology specialists, the integration of all such technology pieces into these schools has become a way of life. The importance which teachers attach to this technology in producing positive working conditions indicates the potential which such tools have in terms of strengthening teacher retention in hard to staff schools.

Teacher Survey Responses Across All Schools to Five Key Questions
(Scale: 1=Not Important; 4=Very Important)

tance of factors initally attracting you to this school

Response	Mean
Q8 - Educational philosophy	3.32
Q8 - School Principal	3.25
Q8 - School culture	3.23
Q8 - School's reputation	3.11
Q8 - Level of teacher involvement in important school decisions	3.02
Q8 - Class sizes	2.98
Q8 - Colleagues (fellow teachers)	2.95
Q8 - Student population/demographics	2.93
Q8 - Location	2.92
Q8 - School size	2.87
Q8 - Salary/earning potential	2.84
Q8 - Amount of time allotted for planning and professional development	2.80
Q8 - Community support	2.71
Q8 - Flexible/creative scheduling	2.70
Q8 - Facility	2.69
Q8 - Benefits package	2.69
Q8 - Parental support	2.59
Q8 - District's reputation	2.27
Q8 - Assistant Principal	2.08
Q8 - Hiring incentives offered by the school or district	2.08
Q8 - Convenience with child care or spouse coordination	1.85
Q8 - It was the only school with openings	1.78

Q10: Importance of factors in choosing to stay at school

Rank	Response	Mean
1	Q10 - Educational philosophy	3.46
2	Q10 - School principal	3.45
3	Q10 - Flexibility to design and tailor instruction	3.40
4	Q10 - School culture	3.37
5	Q10 - School safety and discipline	3.33
6	Q10 - Colleagues (fellow teachers)	3.32
7	Q10 - Resources & supports for struggling students	3.31
8	Q10 - Level of teacher involvement in important school decisions	3.25
9	Q10 - Amount of time allotted for planning	3.18
10	Q10 - School size	3.12
11	Q10 - Effective use of data to drive instruction	3.12
12	Q10 - Class sizes	3.10
13	Q10 - Quality of professional development	3.07
14	Q10 - Flexible/creative scheduling	3.05
15	Q10 - Student population/demographics	3.00
16	Q10 - Salary/earning potential	2.96
17	Q10 - Location	2.90
18	Q10 - Community support	2.82
19	Q10 - Parental support	2.75
20	Q10 - Facility	2.74
21	Q10 - Supportive district policies	2.74
22	Q10 - Retirement system	2.66
23	Q10 - Assistant principal	2.62
24	Q10 - Induction/New Teacher mentoring program	2.36
25	Q10 - No other good options exist	1.77

Q13: Which factors contribute to teachers leaving?

Rank	Response	Mean
1	Q13 - Life change (e.g., maternity leave, move)	2.94
2	Q13 - Promotion to another position	2.57
3	Q13 - Voluntary transfer to another school	2.30
4	Q13 - Don't want to teach any longer	2.24
5	Q13 - School principal	2.22
6	Q13 - Retirement	2.20
7	Q13 - Salary/earning potential	2.17
8	Q13 - Conflict with the educational philosophy	2.01
9	Q13 - Location	1.95
10	Q13 - Need a more flexible schedule	1.95
11	Q13 - Insufficient time for planning	1.95
12	Q13 - Released due to poor job performance	1.94
13	Q13 - Lack of teacher involvment in important school decisions	1.94
14	Q13 - Safety/discipline issues	1.86
15	Q13 - Lack of support from colleagues	1.84
16	Q13 - Insufficient resources & supports for struggling students	1.83
17	Q13 - Insufficient mentoring/induction for new teachers	1.81
18	Q13 - Lack of parental support	1.77
19	Q13 - Class sizes	1.72
20	Q13 - Insufficient professional development	1.72
21	Q13 - Lack of community support	1.64
22	Q13 - Forced transfer to another school	1.63
23	Q13 - Student population/demographics	1.60
24	Q13 - School size	1.58
25	Q13 - Building or facility quality	1.57
26	Q13 - Assistant principal	1.55
27	Q13 - Poor reputation of school	1.42

Q16: Importance in finding/hiring new teachers

Rank	Response	Mean
1	Q16 - Final say in hiring decisions at school level	3.04
2	Q16 - School-level recruiting/screening of applicants to be interviewed	2.98
3	Q16 - Timing of hiring process	2.72
4	Q16 - Involvement of teachers in hiring process	2.70
5	Q16 - Ability to hire candidates after their student teaching experience in your school	2.31
6	Q16 - Centralized district recruiting/screening of applicants to be interviewed	2.19
7	Q16 - Incentives offered to attract candidates to your school	2.19
8	Q16 - Flexibility in union/contract rules	1.90
9	Q16 - Final say in hiring decisions at district level	1.90
10	Q16 - Involvement of students in hiring process	1.67
11	Q16 - Involvement of parents in hiring process	1.66

Q19: Importance in creating positive working conditions

Rank	Response	Mean
1	Q19 - School leadership	3.47
2	Q19 - Common planning periods with content or grade level colleagues	3.41
3	Q19 - Availability of technology	3.31
4	Q19 - Teacher involvement in important school decisions	3.21
5	Q19 - Early dismissal days to allow for planning and professional development	3.16
6	Q19 - "Duty free" schedule (no bus, lunch, etc., duties for teachers)	3.16
7	Q19 - Delivery of professional development	3.12
8	Q19 - Personnel to help teachers interpret and use student performance data	3.06
9	Q19 - Tuition reimbursement	3.01
10	Q19 - Teacher coaches to assist teachers and help implement professional developmen	2.99
11	Q19 - Support personnel to help in classrooms	2.96
12	Q19 - Induction or teacher mentoring program for new teachers	2.89
13	Q19 - Differentiated pay/extra pay for extra work (more money goes to teachers who t	2.88
14	Q19 - Creative scheduling (e.g., varied start times for teachers)	2.85
15	Q19 - District leadership	2.65
16	Q19 - Higher pay for hard to staff positions/schools	2.61
17	Q19 - Performance/merit pay	2.60
18	Q19 - Job sharing	2.53
19	Q19 - Housing allowances (so teachers can afford to live near where they work)	2.27
20	Q19 - Part-time teaching positions	2.22

APA **SURVEY OF TEACHERS**
IN HIGH ACHIEVING, HIGH POVERTY SCHOOLS

Augenblick, Palaich
and Associates, Inc.

Overview: Through support of the Rose Community Foundation, APA is conducting this survey to help the three largest school districts in the Denver Metro Area better manage teacher turnover and to attract and retain top teachers in schools with high percentages of economically disadvantaged students. Following a nationwide data search, your school was selected as one that has high standardized test scores while also enrolling high percentages of disadvantaged students. The Denver districts are hoping to benefit from your unique insight as a teacher in what some analysts refer to as a school that is "beating the odds" in terms of its high performance despite the socio-economic situations of the students served.

The survey is mostly multiple choice, and should take about 25 minutes to complete. We thank you for taking the time to lend your expertise to this study. **Please note that all survey data will remain anonymous (no individual names will be collected). You will only have one opportunity to complete the survey so please be sure that you have sufficient time to fill it out before you get started.**

Please identify your school district (or charter management organization)

[▼]

Please identify your school

[▼]

How long have you been employed by this school (choose one)?

○ First year here
○ 2–3 years
○ 4–6 years
○ 7–10 years
○ 11+ years

How many total years have you been teaching (in any school, not just this one) (choose one)?

○ First year teaching
○ 2–3 years
○ 4–6 years
○ 7–10 years
○ 11+ years

What is the highest education level that you have completed (select one)?

○ Associate's degree
○ Bachelor's degree
○ Master's degree
○ Doctorate
○ Other (optional)

Are you considered a "Highly Qualified Teacher" as defined by the No Child Left Behind Act?

○ Yes
○ No
○ Don't know

What is your primary area of expertise? (choose all that apply)

☐ Elementary education (teach all core subjects)
☐ Math
☐ Science
☐ Reading/English/History
☐ Social Studies
☐ Humanites
☐ Foreign Language
☐ Art
☐ Music
☐ Physical Education
☐ Special Education
☐ Vocational Education
☐ None apply
☐ Other (optional)

How important were the following factors in **initially attracting** you to your current school? Note: If you cannot see all items in this window, use the scroll bar on the right side of the screen to scroll down.

	not important 1	2	3	very important 4
School Principal	○	○	○	○
Educational philosophy	○	○	○	○
Convenience with child care or spouse coordination	○	○	○	○
Assistant Principal	○	○	○	○
School's reputation	○	○	○	○
Community support	○	○	○	○
Colleagues (fellow teachers)	○	○	○	○
Hiring incentives offered by the school or district	○	○	○	○
Facility	○	○	○	○
Benefits package	○	○	○	○
Parental support	○	○	○	○
Class sizes	○	○	○	○
District's reputation	○	○	○	○
Location	○	○	○	○
Student population/demographics	○	○	○	○
School size	○	○	○	○
Salary/earning potential	○	○	○	○
It was the only school with openings	○	○	○	○
School culture	○	○	○	○
Amount of time allotted for planning and professional development	○	○	○	○
Flexible/creative scheduling	○	○	○	○
Level of teacher involvement in important school decisions	○	○	○	○
Other (optional) _____	○	○	○	○

Approximately what percentage of the teaching staff do you think turns over in your school, on average, each year?

○ 75% or more
○ 50-74%
○ 26-49%
○ 10-25%
○ less than 10%
○ Don't know

How important are the following factors in your choosing **to stay** at this school? Note: If you cannot see all items in this window, use the scroll bar on the right side of the screen to scroll down.

	not important 1	2	3	very important 4
Parental support	○	○	○	○
Quality of professional development	○	○	○	○
School size	○	○	○	○
Assistant principal	○	○	○	○
Retirement system	○	○	○	○
Resources & supports for struggling students	○	○	○	○
Salary/earning potential	○	○	○	○
Class sizes	○	○	○	○
School culture	○	○	○	○
Level of teacher involvement in important school decisions	○	○	○	○
School principal	○	○	○	○
School safety and discipline	○	○	○	○
Induction/New Teacher mentoring program	○	○	○	○
Student population/demographics	○	○	○	○
No other good options exist	○	○	○	○
Location	○	○	○	○
Flexibility to design and tailor instruction	○	○	○	○
Effective use of data to drive instruction	○	○	○	○
Educational philosophy	○	○	○	○
Community support	○	○	○	○
Colleagues (fellow teachers)	○	○	○	○
Flexible/creative scheduling	○	○	○	○
Supportive district policies	○	○	○	○
Facility	○	○	○	○
Amount of time allotted for planning	○	○	○	○
Other (optional) [_____]	○	○	○	○

Which of the following **best describes** your school? (select one)

○ Although teacher turnover is relatively high, the school or district has found creative ways to continually replenish with quality teachers.

○ The school or district has found creative ways to keep teacher turnover relatively low.

○ We have a high amount of turnover annually and little has been done about it.

○ We have a low amount of turnover annually but it isn't because of anything special done at the school or district level.

○ Other (optional)

What factors contribute most strongly to other teachers **leaving** your school? Note: If you cannot see all items in this window, use the scroll bar on the right side of the screen to scroll down.

	not important 1	2	3	very important 4
Insufficient mentoring/induction for new teachers	○	○	○	○
Voluntary transfer to another school	○	○	○	○
Assistant principal	○	○	○	○
School principal	○	○	○	○
Poor reputation of school	○	○	○	○
Promotion to another position	○	○	○	○
Safety/discipline issues	○	○	○	○
Lack of teacher involvment in important school decisions	○	○	○	○
Building or facility quality	○	○	○	○
Location	○	○	○	○
School size	○	○	○	○
Retirement	○	○	○	○
Forced transfer to another school	○	○	○	○
Released due to poor job performance	○	○	○	○
Life change (e.g., maternity leave, move)	○	○	○	○
Lack of parental support	○	○	○	○
Lack of community support	○	○	○	○
Don't want to teach any longer	○	○	○	○
Salary/earning potential	○	○	○	○
Lack of support from colleagues	○	○	○	○
Insufficient professional development	○	○	○	○
Insufficient time for planning	○	○	○	○
Student population/demographics	○	○	○	○
Class sizes	○	○	○	○
Insufficient resources & supports for struggling students	○	○	○	○
Need a more flexible schedule	○	○	○	○
Conflict with the educational philosophy	○	○	○	○
Other (optional) [____]	○	○	○	○

Do provisions in your collective bargaining agreement or union contract play an important role in your choosing to stay in this school district versus others?

○ Yes
○ No
○ No collective bargaining agreement exists (for example: any schools in Georgia or charter schools)
○ Don't know

Please **list any factors** about the collective bargaining agreement or union contract that make working in this district better than in other districts:

On a scale of 1 (low) to 4 (high), how important have the following been to **finding/hiring** the best teachers for your school? Note: If you cannot see all items in this window, use the scroll bar on the right side of the screen to scroll down.

	not important 1	2	3	very important 4
School-level recruiting/screening of applicants to be interviewed	○	○	○	○
Final say in hiring decisions at district level	○	○	○	○
Involvement of students in hiring process	○	○	○	○
Final say in hiring decisions at school level	○	○	○	○
Timing of hiring process	○	○	○	○
Involvement of teachers in hiring process	○	○	○	○
Centralized district recruiting/screening of applicants to be interviewed	○	○	○	○
Flexibility in union/contract rules	○	○	○	○
Incentives offered to attract candidates to your school	○	○	○	○
Ability to hire candidates after their student teaching experience in your school	○	○	○	○
Involvement of parents in hiring process	○	○	○	○
Other (optional)	○	○	○	○

Looking five years ahead, which of the following most closely resembles your career path?

○ Continue teaching at current school long-term
○ Move to another school site to teach within your district
○ Move to another school site to teach in another district
○ Move up to an administrative position within your district
○ Move up to an administrative position in another district
○ Leave teaching
○ Other (optional)

Indicate the types of training you have received to date (select all that apply):

☐ Teacher preparation program through an institute of higher education
☐ Student teaching experience in another school
☐ Student teaching experience in your current school
☐ Alternative or emergency certification program
☐ Teach for America
☐ National Board for Professional Teaching Standards Certification
☐ Induction/mentoring program in your school
☐ Induction/mentoring program through your district
☐ None apply
☐ Other (optional)

On a scale of 1 (low) to 4 (high), how important have the following been to **creating positive working conditions** in your school? (Check N/A for any that are not in place in your school.) Note: If you cannot see all items in this window, use the scroll bar on the right side of the screen to scroll down.

	not important 1	2	3	very important 4	N/A
Creative scheduling (e.g., varied start times for teachers)	○	○	○	○	○
Housing allowances (so teachers can afford to live near where they work)	○	○	○	○	○
Differentiated pay/extra pay for extra work (more money goes to teachers who take on additional responsibilities)	○	○	○	○	○
Availability of technology	○	○	○	○	○
Support personnel to help in classrooms	○	○	○	○	○
Common planning periods with content or grade level colleagues	○	○	○	○	○
School leadership	○	○	○	○	○
Higher pay for hard to staff positions/schools	○	○	○	○	○
Job sharing	○	○	○	○	○
Performance/merit pay	○	○	○	○	○
Teacher coaches to assist teachers and help implement professional development	○	○	○	○	○
Early dismissal days to allow for planning and professional development	○	○	○	○	○
"Duty free" schedule (no bus, lunch, etc., duties for teachers)	○	○	○	○	○
Personnel to help teachers interpret and use student performance data	○	○	○	○	○
Induction or teacher mentoring program for new teachers	○	○	○	○	○
District leadership	○	○	○	○	○
Teacher involvement in important school decisions	○	○	○	○	○
Tuition reimbursement	○	○	○	○	○
Delivery of professional development	○	○	○	○	○
Part-time teaching positions	○	○	○	○	○
Other school-level policy (optional)	○	○	○	○	○
Other district-level policy (optional)	○	○	○	○	○

Completion indicator

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If you have any further input or comments please note them here.

Thank you for taking the time to complete this survey!

APPENDIX C:
Data on Schools Included in Study

CALIFORNIA	California State Average	San Francisco Unified School District	City Arts Technology HS	Metropolitan Arts and Technology HS
Type			Charter	Charter (opened 2005)
Grade Span			Grades 9-10	Grades 9-12
Size		9,321 students 15 schools	245	195
At-Risk Enrollment 2005-06	51%	53%***	42%	60%**
ELL	25%	21%	7%	16%
Special Ed***	11%	12%***	N/A	N/A
Performance on 2006-2007 California High School Exit Exam (CAHSEE)*				
Student Proficiency 2006-07				
Grade 10 English Language Arts	77%		83%	84%
Grade 10 Math	76%		76%	80%
Student Proficiency 2005-06				
Grade 10 English Language Arts			86%	N/A
Grade 10 Math			72%	N/A
TEACHER DATA				
Average Class Size	27		20	18
Average years teaching	13		5	4
First year teachers	6%		9%	15%
Sources: All data from Great Schools.net.				
http://www.greatschools.net/modperl/browse_school/ca/13756#from..Tab				

COLORADO	Colorado State Average	Denver Public Schools	Asbury Elementary School	Teller Elementary School	KIPP Sunshine Peak	Denver School of Science and Technology
Type			Traditional	Traditional	Charter	Charter
Grade Span			PK-5	PK-5	Grades 5-8	Grades 9-12
Size		73,873 students 150 schools	292 Students	240 students	323 students	335 Students
At-Risk Enrollment 2006-07	33%	65%	58%*	53%*	91%*	38%*
ELL	13%***	36%***	8%*	15%*	26%*	7%*
Special Ed	10%***	12%***	20%*	15%*	10%*	7%*
Performance on CSAP Tests						
Student Proficiency 2006-07						
Grade 3-5 Reading	68%		84%	71%		
Grades 3-5 Math	68%		88%	72%		
Grade 5-8 Reading	67%				53%	
Grade 5-8 Math	55%				50%	
Grades 9-10 Reading	68%					85%
Grades 9-10 Math	60%					60%
Student Proficiency 2005-06						
Grade 3-5 Reading	69%**		81%	72%		
Grade 3-5 Math	68%**		81%	73%		
Grade 5-8 Reading	67%**				54%	
Grade 5-8 Math	53%**				55%	
Grades 9-10 Reading	67%**					82%
Grades 9-10 Math	35%**					60%
*Student Proficiency 2004-05**						
Grade 3-5 Reading	68%**		77%	69%		
Grade 3-5 Math	66%**		80%	65%		
Grade 5-7 Reading	67%**				44%	
Grade 5-7 Math	55%**				63%	
TEACHER DATA						
Number of teachers*			19	21	18	21
Students per FTE Teacher	17		16	12	14	14
Average Years Teaching Experience*	9		9	11	4	9
Number of Teachers with tenure*			15	15	1	0 (charter)
Number of years principal at this school*			7	9	5	3

Sources: All data from Great Schools.net except: (*) From Colorodo School Accountability Reports and DPS data; (**) From Colorado Department of Education; (***) From NCES Common Core of Data 2005.

FLORIDA	Florida State Average	Miami Dade School District	Seminole Elementary	South Pointe Elementary
Type			Traditional	Traditional
Grade Span		PK-12	PK-5	PK-6
Size		433 schools 362,033 students	693	519
At-Risk Enrollment	47%	63%	75%**	69%**
ELL	10%	16%***	39%**	29%**
Special Ed	15%	12%***	8%**	7%**
Performance on FCAT				
Student Proficiency 2006-07				
Grade 3-5 Reading	70%*		84%	79%
Grades 3-5 Math	67%*		78%	82%
Student Proficiency 2005-06				
Grade 3-5 Reading	69%*		78%	81%
Grade 3-5 Math	65%*		81%	78%
Student Proficiency 2004-05				
Grade 3-5 Reading	68%*		79%	80%
Grade 3-5 Math	63%*		76%	83%
TEACHER DATA				
Teachers with advanced degrees	35%	44%	35%	63%
Classes taught by out-of-field teachers	6%	2%	<1%	3%
Students per FTE Teacher	16	17	15	15
Average Years Teaching Experience	13	12	15	13
Sources: All data from Great Schools.net, except:				
*Florida Department of Education 2007				
**Just for the Kids 2006 data				
***NCES Common Core of Data 2004-05				

GEORGIA	Georgia State Average	Atlanta City School District	East Lake Elementary	Toomer Elementary	Capitol View Elementary
Type			Traditional	Traditional	Traditional
Grade Span		PK-12	PK-5	PK-5	K-5
Size		98 Schools 49,965 students	278 students	217 students	228
At-Risk Enrollment	48%	75%	91%	94%	88%
ELL	3.9%**	2%	0%	0%	0%
Special Ed	12%**	9%	12%	17%	7%
PERFORMANCE ON CRITERION REFERENCED COMPETENCY TEST (CRCT)					
Student Proficiency 2005-06					
Grade 1-5 Reading	84%		91%	86%	93%
Grades 1-5 Math	87%		97%	89%	95%
Student Proficiency 2004-05					
Grade 1-5 Reading	89%		94%	81%	96%
Grade 1-5 Math	86%		94%	77%	93%
Student Proficiency 2003-04					
Grade 1-5 Reading	86%		79%	73%	94%
Grade 1-5 Math	85%		72%	69%	93%
TEACHER DATA*					
Teacher with bachelor's degrees	48%		73%	52%	69%
Teacher with master's degrees	41%		27%	38%	27%
Teacher with doctorate degrees	1%		0%	0%	0%
Students per FTE Teacher	15		14	11	10
Average Years Teaching Experience	13		7	10	5
First Year Teachers	6%		41%	21%	38%
Sources: All data 2005-06 from the Georgia Department of Education, except:					
*Great Schools.net					
**National Center for Education Statistics, 2004					

MARYLAND	State Average	Baltimore City Public Schools	George Washington Elementary	Dallas Nicholas Elementary	Cecil Elementary
Type			Traditional	Traditional	Traditional
Grade Span			PK-5	Pk-5	Pk-5
Size		88,000 students	297	380	381
At-Risk Enrollment	32%	73%	88%	89%	92%
ELL*	4%	2%	0%	5%	0%
Special Ed*	13%	17%	16%	14%	10%
Performance on State Assessments					
Student Proficiency 2006-07					
Grades 3-5 Reading	81		96	88	89
Grades 3-5 Math	81		92	86	95
Student Proficiency 2005-06					
Grades 3-5 Reading			90	85	80
Grades 3-5 Math			92	87	81
*Student Proficiency 2004-05***					
Grades 3-5 Reading			82	75	75
Grades 3-5 Math			78	82	81
<u>Sources</u>: All data from Great Schools.net, except:					
*2004-05 Data from NCES and Baltimore City Public School Profiles					

VIRGINIA	Virginia State Average	Norfolk City Public Schools	St. Helena Elementary	Oakwood Elementary
Type			Traditional	Traditional
Grade Span		PK-12	PK-5	PK-5
Size		53 schools 35,103 students	278 students	283 students
At-Risk Enrollment 2005-06	31%	57%	75%	83%
Special Education*	13%	13%	11%	15%
ELL Enrollment**	6%	1%	1%	1%
Performance on Standards of Learning (SOL) tests				
Student Proficiency 2006-07				
Grade 3-5 Reading	85%		88%	86%
Grades 3-5 Math	86%		81%	91%
Student Proficiency 2005-06				
Grade 3-5 Reading			88%	92%
Grade 3-5 Math			92%	96%
Student Proficiency 2004-05				
Grade 3 and Grade 5 Reading			85%	85%
Grade 3 and Grade 5 Math			95%	93%
TEACHER DATA				
Students per FTE Teacher	13		11	10
Sources: All data from Great Schools.net, except:				
*Schoolmatters.com				
**NCES Common Core of Data 2004-05				