EDUCATIONAL AND OPERATIONAL EFFICIENCY STUDY

of the Clark County School District

Submitted to:

CCSD
CLARK COUNTY
SCHOOL DISTRICT

Submitted by:

GIBSON
CONSULTING GROUP

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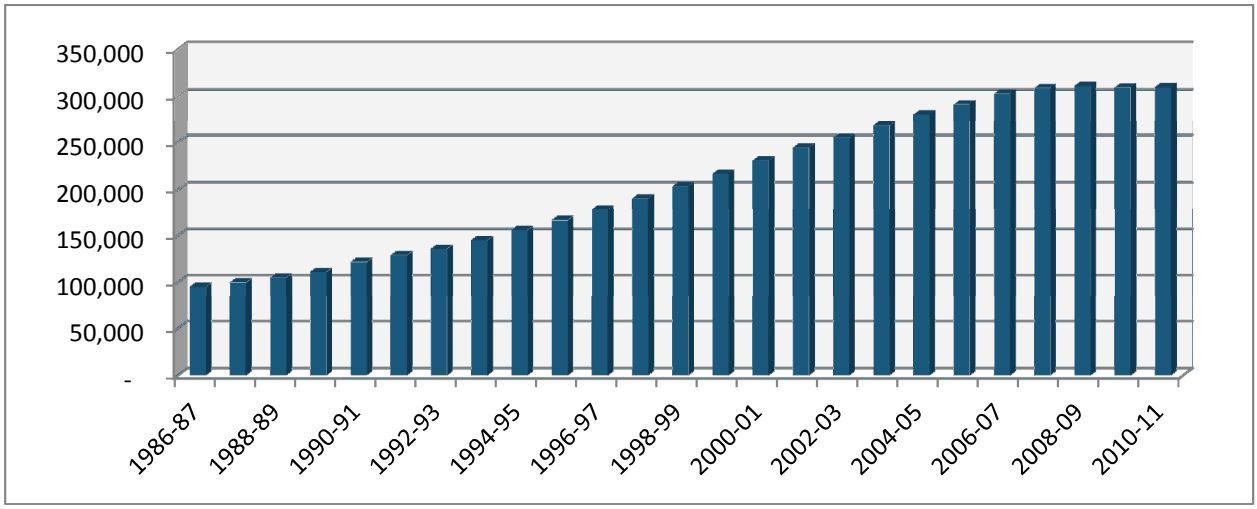
Chapter 1 – Executive Summary

This executive summary represents the results of an Educational and Operational Efficiency Study conducted for the Clark County School District (CCSD) by Gibson Consulting Group, Inc., (Gibson) an education consulting firm based in Austin, Texas. This study began on May 27, 2011 and was completed August 31, 2011.

The intent of this study was to examine CCSD structures and processes and recommend operational and educational efficiencies, with a core focus on increasing student achievement. The study was not intended to be a comprehensive evaluation of CCSD's efficiency, but rather to identify major areas that the district should focus on to increase efficiency and effectiveness in its educational programs and operational services.

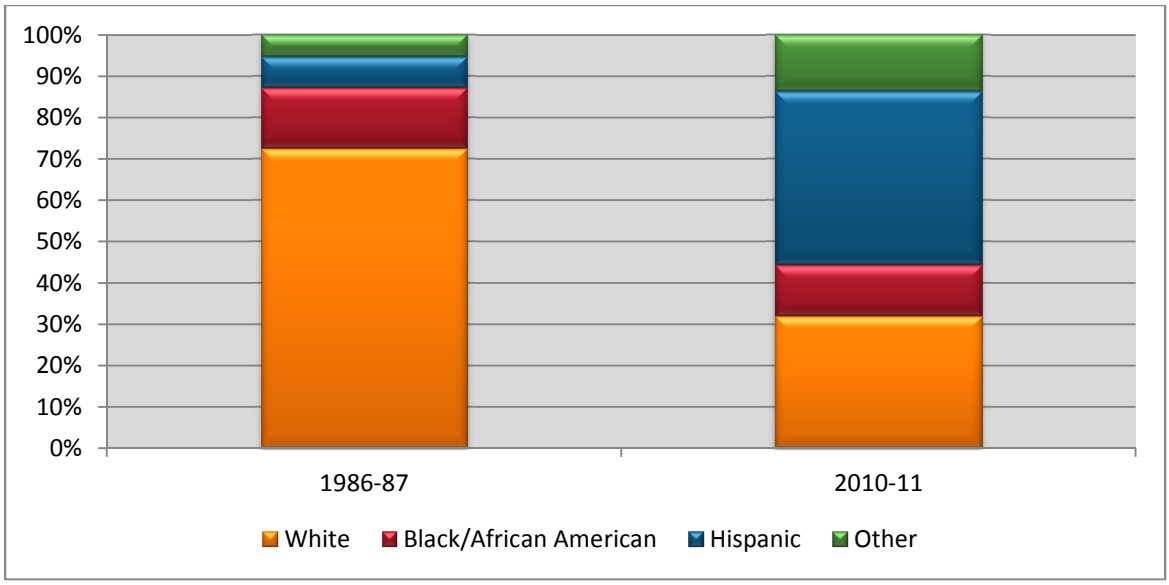
This study took place during a critical juncture in CCSD's existence. After 25 years of rapid growth (see Figure 1.1) and changing demographics (see Figure 1.2), during which time CCSD became the fifth largest school system in the U.S., growth has virtually stopped due to an economic downturn in Nevada. Between 1986-87 and 2007-08, CCSD added 200,000 students – the current size of the Houston Independent School District in Texas.

Figure 1.1. CCSD enrollment growth, 1986-87 to 2010-11



Source: CCSD Demographics, Zoning and GIS, 2011

Figure 1.2. CCSD student ethnicity, 1986-87 and 2010-11



Source: CCSD Demographics, Zoning and GIS, 2011

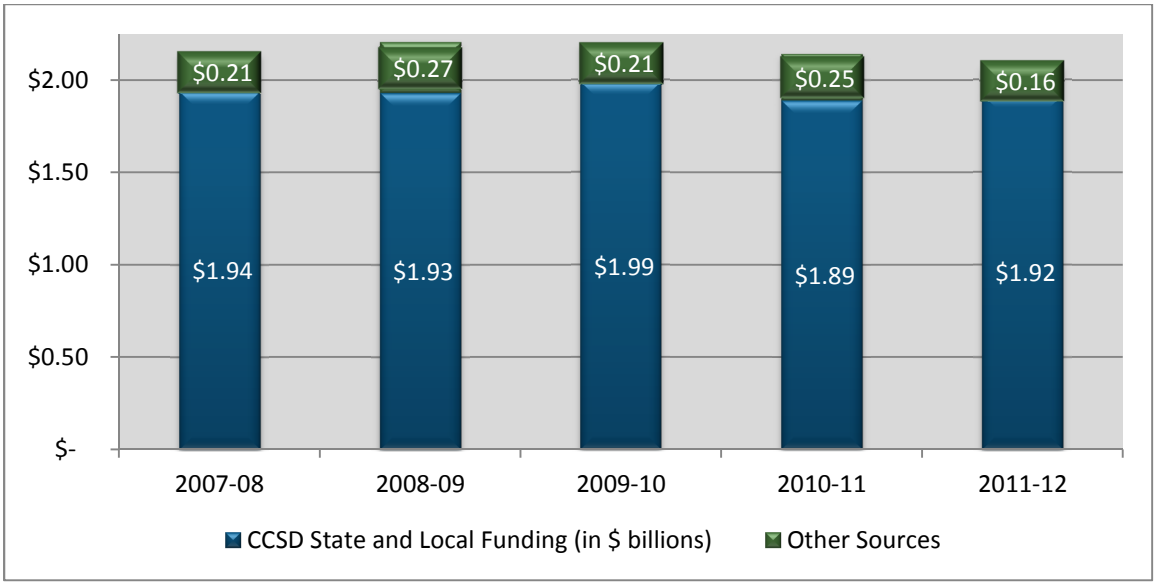
During this period of growth, the district built up to 16 new schools each year and hired thousands of new teachers and other employees to meet the increased demands. This level of growth is unheard of in American public education. CCSD's ability to match this demand with the necessary facilities, staff, and financial resources has been a remarkable achievement.

The recent downturn in the economy has also contributed to flat funding levels for education in recent years, leaving Nevada ranked 47th out of the 50 states in per pupil spending.[1] In fiscal year 2009, Nevada spent $7,615 per student to support operating expenditures, compared to the U.S. average of $10,190.[2] Since 2007-08, CCSD state and local revenues have declined from $1.94 billion to $1.92 billion (see Figure 1.3). CCSD total revenues have declined from $2.15 billion in 2007-08 to $2.08 billion in 2011-12 and have dropped each of the past three years.

[1] Based on current operating expenditures per student, National Education Association, Rankings and Updates, 2008-09

[2] Source: National Education Association, "Rankings & Updates" 2008-09.

Figure 1.3. CCSD Revenues (in $ billions), 2007-08 through 2011-12



Source: CCSD 2011-12 Annual Budget Report; 2010-11 and 2011-12 are projected amounts.

Throughout its growth period, the district has struggled to make substantial gains in student performance. To accelerate the pace of growth in student achievement through major educational reform, the CCSD Board selected a new superintendent in September 2010, Mr. Dwight Jones. Superintendent Jones has established an aggressive reform agenda, as reflected in his May 2011 report *A Look Ahead: Phase 1 Preliminary Reforms Report*[3]. This guiding document establishes higher expectations for CCSD staff and students with the goal of having each student "ready by exit." To do this, Superintendent Jones asserts that "we must do things differently" and overcome the barriers that inhibit reform. Many of these reform initiatives are already underway, and the progress of these reforms was evident during this study including:

- Emphasis on performance management and accountability.
- Development of student data dashboards and more strategic data usage.
- Establishment of performance zones to focus resources on schools with the highest needs.
- Emphasis on Return on Investment – to determine if the programs and interventions in which CCSD is investing are providing the desired academic returns.
- Expansion of the Empowerment Schools, whereby schools have more flexibility to allocate resources to meet their own needs.
- Adoption of a growth model to measure student progress and identify those programs that achieve substantial improvement in student achievement.

[3] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

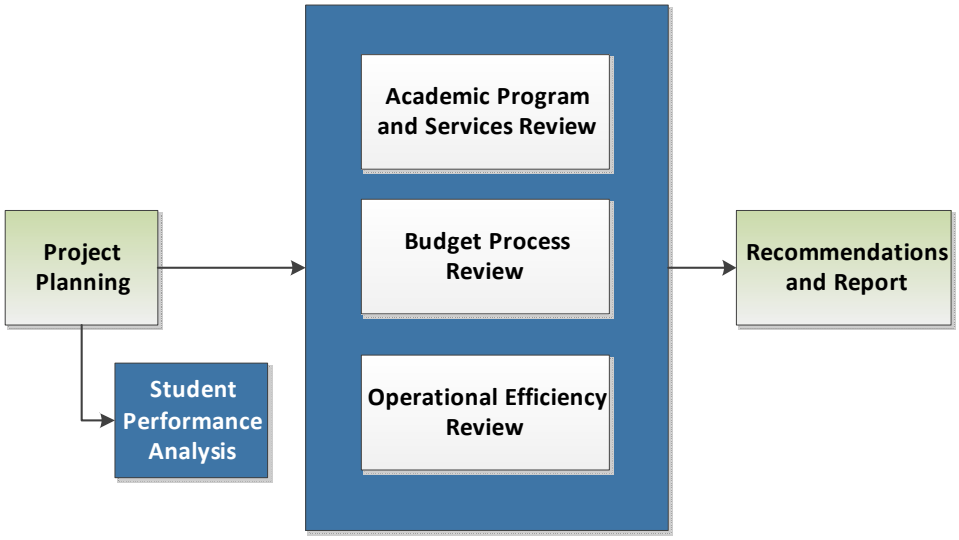
- Implementation of a school performance framework that focuses on yearly academic growth of students and enables staff to learn more easily from each other about what works.

The impetus for this Educational and Operational Efficiency Study was based on a growing concern that, in the midst of higher academic expectations, a more challenging student population, and increasingly limited financial resources, something must be done to ensure that student performance is not compromised. Numerous internal efforts have been undertaken over the past several years to improve efficiency, reduce costs, modify programs and staffing formulas, and identify additional revenues. The Superintendent commissioned this study to provide a fresh and objective view of the organization's efficiency, and to identify major opportunities to reduce costs or re-purpose funds to better support needed investments in his educational reform agenda.

Study Methodology

The methodology used by Gibson to conduct this study involved six major tasks, four of which represent major analysis components (see Figure 1.4) that are discussed below.

Figure 1.4 Project methodology



Source: Gibson Consulting Group, Inc.

- A **student performance analysis** was conducted through two separate research efforts by American Institutes for Research (AIR), a subcontractor to Gibson for this study. The student performance analysis included a trend analysis of CCSD student performance over the past six years, and a comparison of CCSD to three peer districts selected based on similar size and demographics, among other factors.

- **Academic programs and services** were analyzed in terms of their efficiency and effectiveness in supporting the academic needs and priorities of CCSD in a cost-effective manner. The review

included curriculum development and implementation, teacher professional development, student assessment, school operations, and specific academic programs.

- A **budget process review** evaluated the effectiveness of the budget process in allocating district resources to meet CCSD needs and priorities. The transparency of the budget document – the ability to justify and effectively communicate district spending levels – was also evaluated.

- The **operational review** analyzed areas including district organization and management, financial management, human resources, technology, facilities management, transportation and food services to identify opportunities to reduce costs and/or improve the efficiency and effectiveness of these units. The operational review also evaluated global organizational and management elements of CCSD, including how decisions are made.

This study focused on major findings and recommendations to improve educational and operational programs, and was not intended to be an efficiency report card on every aspect of CCSD programs and services. Emphasis was placed on the district's General Fund expenditures, which are used to support most of its operations. Separate funds used for capital expenditures and debt service were excluded for purposes of this study. In certain situations, other funds (e.g., Title I and food services) were discussed if a recommendation had an effect on the district's General Fund or if there were management issues related to these funds.

During the initiation of the project, data from all major areas were analyzed and interviews were conducted with CCSD staff to identify the key areas to be addressed during the remainder of the project. This approach resulted in a filtering of issues by the project team and the subsequent in-depth analysis of selected issues. Some operational and program areas, such as the CCSD Police Services Division, Community Involvement, and Vegas PBS did not have major issues related to efficiency or did not have significant opportunities for cost reduction. Accordingly, these areas are not included in this report.

Gibson collected over 1,000 documents from CCSD related to its educational and operational programs, such as organization charts, program descriptions, staff rosters, budgets, operational metrics, and performance reports. In addition, the district provided detailed student-level achievement data to support the analysis of student performance.

Almost 400 hours of interviews were conducted with approximately 260 CCSD staff members from June 18 through July 27, 2011. Interviews included district leadership, department heads and staff, operational leads, and support staff, among others. The review team also conducted focus group sessions with principals and selected staff groups. Because the study was conducted during the summer break, no school visits were conducted. However, findings and recommendations were based on the corroboration of data from district documents and information received through interviews and focus groups.

Major Findings and Recommendations

The results of this study show that while CCSD is a low-cost provider of public education and is efficient in several areas, the district could better meet student needs through re-purposing its spending in academic areas, implementing cost reduction opportunities (primarily in operational areas), and improving management practices. The report's major findings are summarized below.

Student Achievement

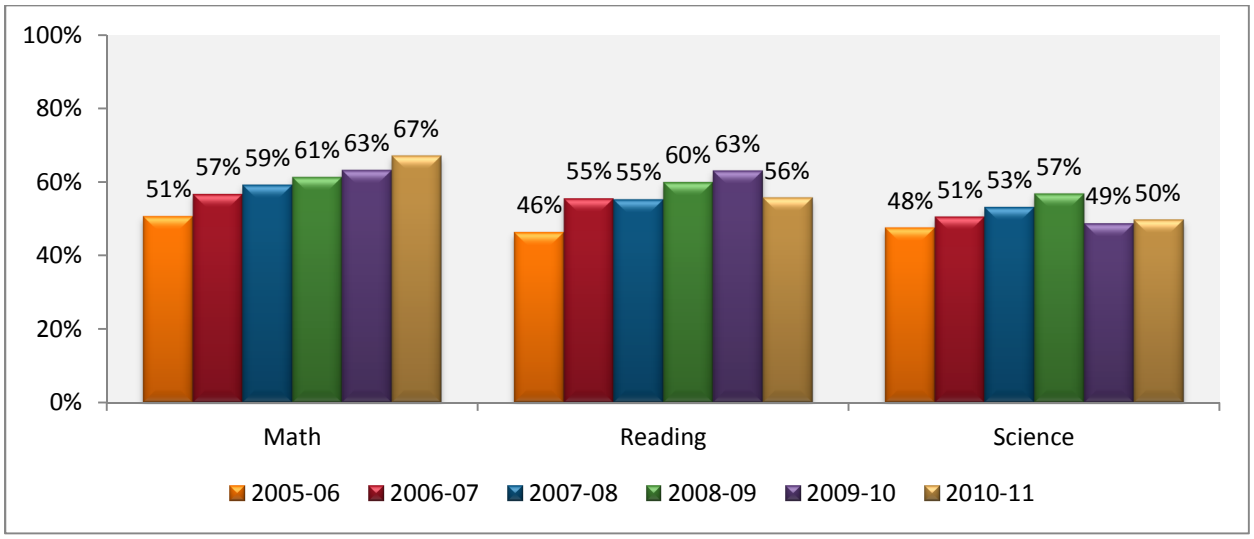
This section presents an overview of CCSD's student achievement in three areas:

- Criterion Referenced Test (CRT) for grades 3 through 8 combined
- High School Proficiency Exam (HSPE) data for grade 10 (math, reading, and science) and grade 11 (writing)
- District-wide performance and other statistics for CCSD compared to three peer districts

CCSD's overall student performance is behind that of its peer districts as well as its own performance standards, and large achievement gaps still exist between student sub-groups. Forty-four percent of CCSD schools have the lowest possible rating ("in need of improvement") for Adequate Yearly Progress (AYP) based on criteria in the *No Child Left Behind Act*.

Overall, proficiency rates have shown upward trends, but remain below the district standard of 90 percent to 100 percent proficiency. Figure 1.5 presents the CCSD proficiency rates for grades 3 through 8 for the past six years. Declines in proficiency rates in reading in 2010-11 and in science in 2009-10 are attributed to new tests established in those subjects in those years.

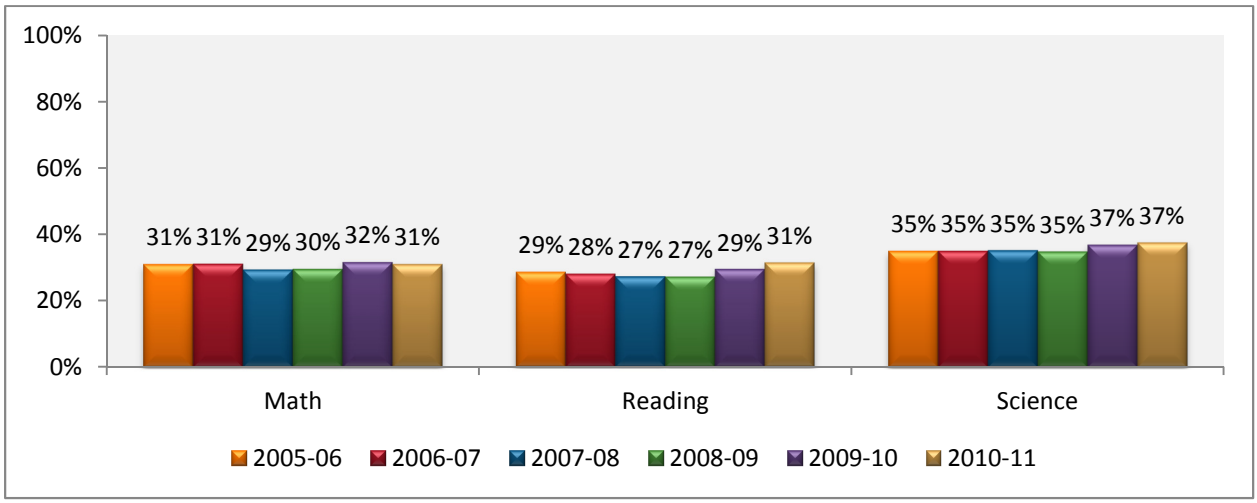
Figure 1.5. Criterion Referenced Test (CRT) proficiency rates, grades 3–8 combined



Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11.

Achievement gaps in 2010-11 between Black/African-American students and White students in grades 3-8 range from 31 percentage points in math and reading to 37 percentage points in science, and these gaps have not substantively changed over the past six years (see Figure 1.6).

Figure 1.6. CRT achievement gaps between Black/African American and White students, grades 3-8 combined

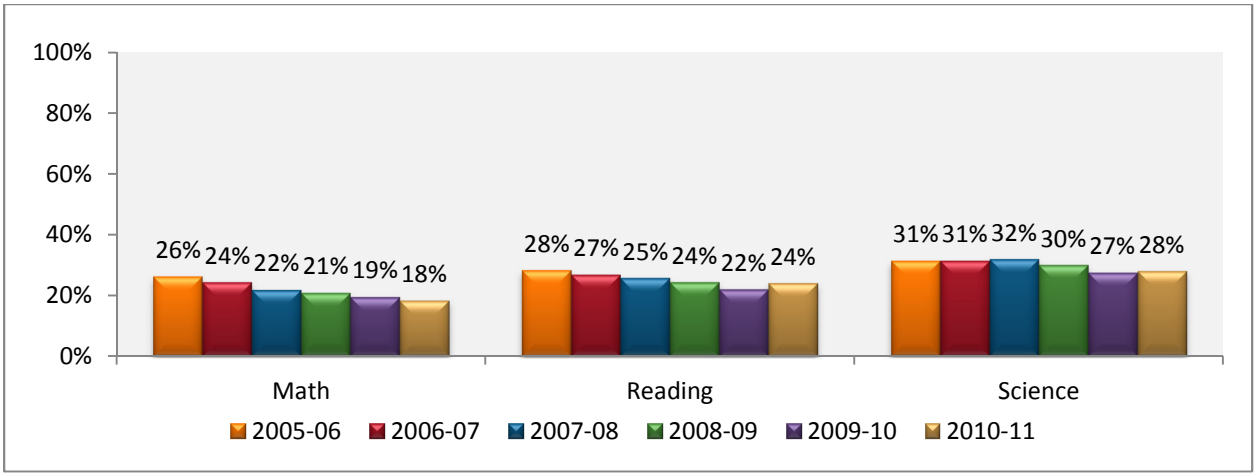


Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11.

Note: Achievement gap is the difference between the proficiency rate of Black/African American and White students in each year. The CRT mathematics and science assessments were revised in 2009–10, and the CRT reading assessment was revised in 2010–11. The definition of the race/ethnicity classifications was revised in 2009–10.

Achievement gaps between Hispanic and White students have improved (become smaller) over the past six years, but still remain large – ranging from 26 to 31 percent in 2005-06 and from 18 to 28 percent in 2010-11. All three subject areas have shown declining gaps over the past six years (see Figure 1.7).

Figure 1.7.CRT achievement gaps between Hispanic and White students, grades 3-8 combined

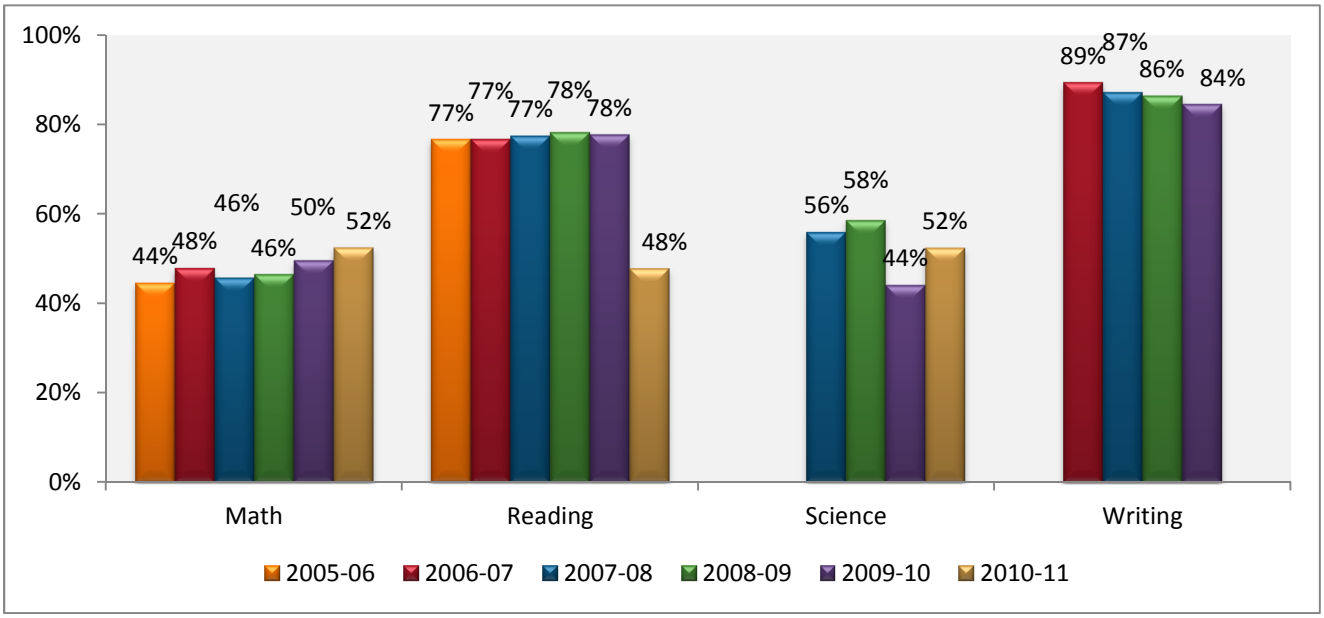


Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11.

Note: Achievement gap is the difference between the proficiency rate of Hispanic and White students in each year.

High school proficiency rates have historically been lower in math and science. In 2010-11, just over one-half (52 percent) of CCSD students were proficient in these two subject areas. Figure 1.8 provides High School Proficiency Exam (HSPE) proficiency rates for 10th grade students in math, reading, and science, and for 11th grade students in writing.

Figure 1.8. HSPE proficiency rates, grade 10 for math, reading, and science; grade 11 for writing



Source: High School Proficiency Exam data files provided by CCSD, 2005-06 to 2010-11.

Note: The math test was revised in 2009-10 and the reading test was revised in 2010-11.

The peer district analysis conducted during this study compared CCSD to three other large school districts with similar demographics – the Houston Independent School District (HISD) – Texas, Broward

County Public Schools (BCPS) – Florida, and Miami-Dade County Public Schools (M-DCPS) – Florida. Table 1.1 presents a profile of CCSD and the peer districts.

Table 1.1. Demographic information for comparison districts (2009–10)

District Information	CCSD	Houston	Broward	Miami-Dade
State	Nevada	Texas	Florida	Florida
Locale type	Suburb, Large	City, Large	Suburb, Large	Suburb, Large
Number of schools	370	309	325	546
Number of students	307,059	202,773	256,137	345,804
Percent FRPL eligible students	43.8%	59.3%	52.8%	68.0%
Percent LEP students	16.8%	28.5%	9.5%	17.2%
Percent SPED students	10.5%	8.1%	12.3%	11.0%
Percent Title I schools	53.5%	88.0%	61.2%	67.2%

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD)

Note: As Common Core of Data student enrollment data were used for CCSD and peer districts, CCSD enrollment numbers in Table 1.1 differ from those used in the full report.

CCSD student performance was generally below the performance levels of these peer districts, particularly in math and reading for the lower grades (3-6). Mean SAT and ACT scores and Advanced Placement test scores were comparable to the peer districts, but participation rates for these tests at CCSD were substantially lower than their peers. Table 1.2 presents selected student performance measures for CCSD and the comparison districts. The red shaded boxes below indicate where CCSD is the lowest performing among the peer districts.

Table 1.2. District performance information for comparison districts (2009–10)

Student Performance Indicator[a]	CCSD	Houston	Broward	Miami-Dade
District AYP status	Met[4]	Not met	Not met	Not met
% proficient, all grades, reading	66.2%	84%	63%	59%
% proficient, all grades, math	63.5%	81%	72%	66%
% proficient, Grade 3, reading	59.8%	89%	72%	68%
% proficient, Grade 3, math	65.3%	83%	80%	78%
% proficient, Grade 4, reading	64.1%	72%	81%	70%
% proficient, Grade 4, math	65.6%	76%	87%	72%
% proficient, Grade 6, reading	62.7%	81%	69%	62%

[4] For the 2009–10 school year CCSD made AYP, but the district failed to make AYP for the 2010–11 school year and has been designated as a "watch" district.

Student Performance Indicator[a]	CCSD	Houston	Broward	Miami-Dade
% proficient, Grade 6, math	61.1%	79%	64%	53%
Mean SAT total score	1423	1388	1456	1426
SAT participation rate	30.6%	54%	51%	48%
Mean ACT total score	21.1	18.8	18.6	17.5
ACT participation rate	20.6%	27%	57%	54%
% AP exams scored 3–5	45.1%	38%	45%	39%
AP exam participation rate [b]	11.3%	24%	29%	29%
Four-year graduation rate [c]	68.1%	74%	78%	72%
Single-year dropout rate (Grades 9–12) [c]	4.8%	3.7%	1.6%	4.0%

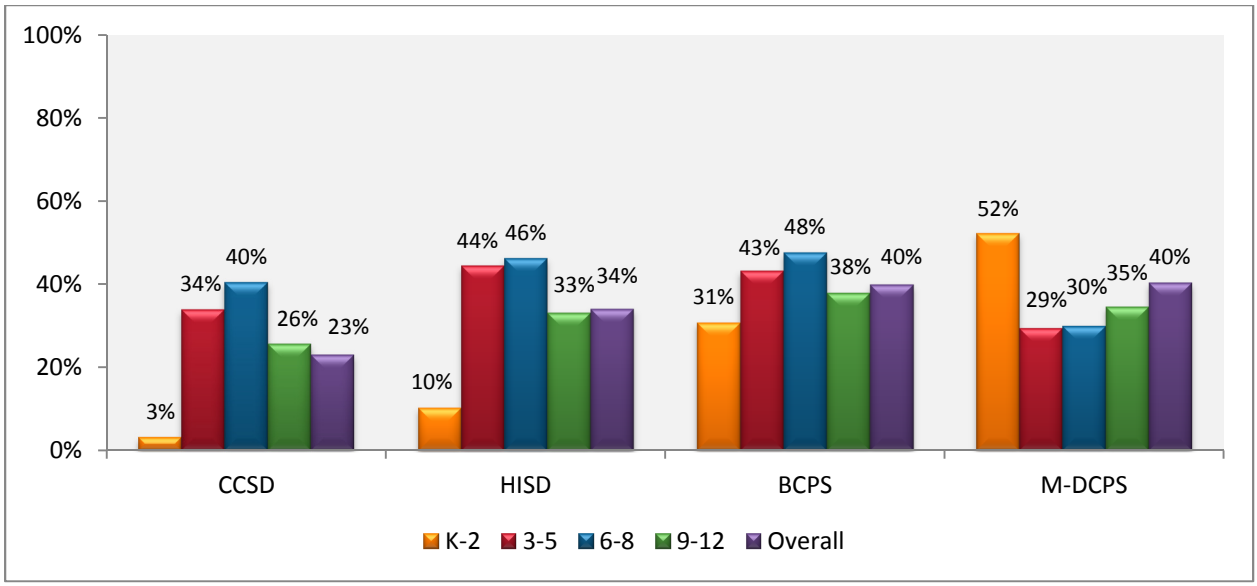
[a] All proficiency rates are based on assessments specific to each state.

[b] Advanced Placement exam participation rates are used as a proxy for AP course enrollment.

[c] 2009–10 graduation and dropout rates based on CCSD data from http://www.nevadareportcard.com; BCPS and M-DCPS data from http://www.fldoe.org/eias/eiaspubs/xls/graddroprate0910.xls; HISD data from http://www.tea.state.tx.us/acctres/dropcomp/years.html.

CCSD also struggles more with certain student sub-groups than does its peer districts. The percentage of Limited English Proficient (LEP) students overall that are considered English proficient is 23 percent for CCSD, and ranged from 34 percent to 40 percent among the peer districts. In kindergarten, the difference in proficiency compared to peers is much larger, as only 3 percent of the youngest CCSD LEP students (grades K-2) are considered English proficient while 10 to 52 percent of peer group K-2 students are proficient (see Figure 1.9). It is important to note that the LEP population in Florida (whose country of origin is typically Cuba) differs from the LEP populations in Texas and Nevada (whose country of origin is typically Mexico). Nonetheless, all three comparable districts (M-DCPS, HISD, and BCPS) have a higher percentage of English proficiency among their respective LEP populations than CCSD. This suggests that the programs in M-DCPS, HISD, and BCPS are more effective in supporting the English acquisition of their LEP populations than is the program in CCSD.

Figure 1.9. Percentage of LEP students considered English proficient in CCSD and peer districts (2010–11)



Sources: 2010–11 English proficiency results based on English Proficiency Status (EPS) data provided by CCSD; Comprehensive English Language Learning Assessment (CELLA) data provided by BCPS and M-DCPS; Texas English Language Proficiency Assessment System (TELPAS) data provided by HISD.

Note: Because LEP students in CCSD had either an English Language Proficiency Assessment (ELPA) score, a Language Assessment Survey (LAS Links) score, or both scores in the data set provided by the district, English Proficiency Status codes for all students were used for this comparison.

During the peer district review, research was conducted with each of the comparison districts to identify successful practices to improve student performance, many of which are now underway at CCSD or recommended in this report.

Educational Alignment and Focus

The existence of organizational silos, driven primarily by different funding sources, has contributed to an excessive number of academic programs, interventions, assessments, and staff professional development programs in CCSD. It appears that decisions have been made without coordination under a single district philosophy, and departments and schools have had the freedom to purchase or select programs on their own. At a global level these cumulative efforts are not generating significant gains in student achievement. At the micro level the district does not track information necessary to determine if specific student programs and interventions are actually having the intended effect. These programs and interventions often overlap, and according to input from principals during focus groups, they are at times in conflict with each other.

The district's supplemental reading programs provide an example of the duplicative programming. Table 1.3 lists some programs used in the district to support literacy. Additional programs selected and purchased by the schools are not centrally tracked. Schools may use Title I funds to purchase instructional programs and, as long as these programs are deemed "scientifically evidence based," there

are few restrictions on purchasing. Since this approach does not appear to be contributing to higher student achievement, program procurement practices should be re-evaluated and changed.

Table 1.3 – Examples of district instructional reading programs – Literacy support

Program and Grade Levels	Elementary School	Middle School	High School
Tier I Core Programs (Adopted Textbooks)			
Harcourt Trophies	•		
McMillan McGraw-Hill	•		
Scott Foresman	•		
Tier I Supplemental Programs			
Compass Learning	•	•	•
Classworks	•	•	
Earobics Step 1-2	•		
Study Island	•	•	
Fast ForWord	•	•	
Achieve 3000	•	•	
Tier II Intervention			
Burst	•		
Fast ForWord	•	•	
Harcourt Trophies Intervention	•		
Read 180 Enterprise Ed.	•	•	•
Time Warp Plus	•		
Voyager Passport	•		
Language		•	•
Corrective Reading		•	•
Voyager Journeys		•	•
Tier III Intensive Intervention			
Fast ForWord	•	•	
Language!	•	•	•
Voyager Passport	•		
Voyager Journeys		•	•
Read 180 Enterprise Edition		•	•
Corrective Reading		•	•
System 44		•	•

Source: *Response to Instruction. A K-12 Multi-Tiered System of Support. A General Education Initiative.*, CCSD

Nine different CCSD reporting units provide literacy professional development. Interviews with district and school administrators and academic managers indicate that teachers often receive conflicting information and recommendations based upon the division or program providing the professional development. The numerous and varied professional development offerings competing for the same audience sometimes create a "forced choice" of particular programs that may prevent access to important information contained in others.

Multiple assessments are used to evaluate student achievement during the school year. Table 1.4 provides examples of elementary assessments for reading and math. However, senior CCSD staff members stated that it is not known if other assessments may be in use across the district.

Table 1.4. Examples of elementary assessments for reading and mathematics

Elementary Assessments	
Screening/Benchmark Assessments	▪ AIMSweb (six assessments of reading and mathematics) ▪ DIBELS ▪ Scholastic Reading Inventory ▪ Vital Indicators of Progress
Diagnostic Assessments (to determine skill deficit)	▪ CORE Phonics Survey ▪ Developmental Reading Assessment ▪ Qualitative Spelling Inventory ▪ MClass ▪ Scholastic Phonics Inventory
Progress Monitoring Assessments	▪ AIMSweb (six assessments of reading and mathematics) ▪ DIBELS ▪ Vital Indicators of Progress ▪ STAR Math

Source: *Response to Instruction. A K-12 Multi-Tiered System of Support. A General Education Initiative., CCSD*

The district cannot successfully implement a performance management system with this number of assessments. Given the district's 30+ percent in-district student mobility rate, students are adversely affected when the assessments vary from school to school. When students transfer within the district, teachers do not have the information they need, in a format with which they are accustomed to working, that describes a student's learning progress or learning challenges. The number and variation of assessments also greatly complicates data analysis at the district level and across individual schools, as well as contributes to the fragmentation of the support systems in professional development.

In summer 2011, CCSD implemented a re-organization around performance zones that will help focus the district's resources on its most pressing needs. These performance zones report to a deputy superintendent, who is accountable for coordinating all academic programs and services provided to schools in these zones. While these two changes provide the organizational framework for success, operational changes to dismantle the organizational silos and promote a coordinated effort are still

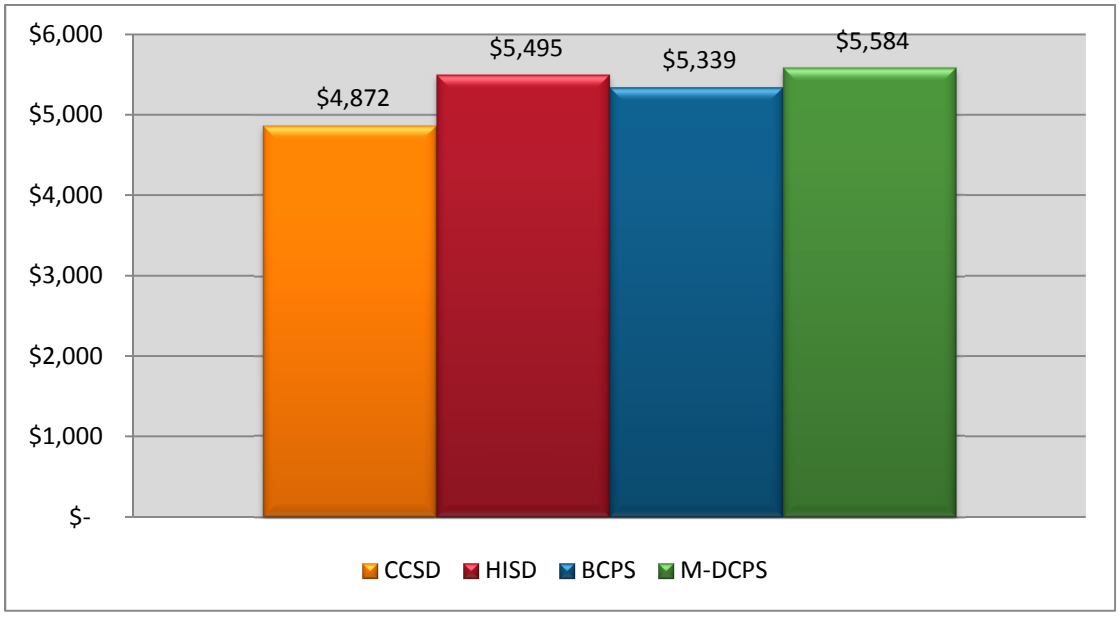
needed. The recommendations in this report will provide the district with specific suggestions to maximize the effectiveness of this new structure. Through re-purposing its expenditures and using cross-functional teams, CCSD should be able to provide more effective and efficient educational programs and student support services by focusing on a smaller set of better-aligned academic, assessment, and professional development programs.

Efficiency

Educational Efficiency

CCSD's instructional spending per student is $500 to $800 per student lower than its peer districts (see Figure 1.10)

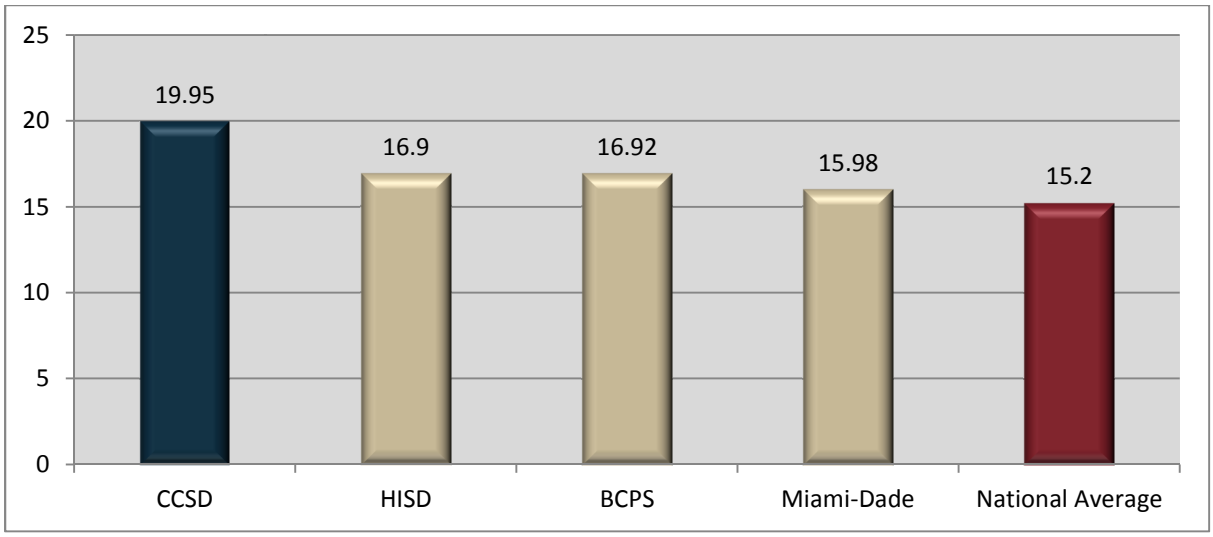
Figure 1.10. Peer comparison of instructional expenditures per student, 2009-10



Source: CCSD 2009-10 Actual Expenditures by Program; Florida Department of Education 2009-10 Annual Financial Report and Comprehensive Annual Financial Report; Texas Education Agency 2009-10 PEIMS District Financial Actual Report.

This variance is due primarily to a larger pupil-teacher ratio at CCSD (see Figure 1.11). CCSD's pupil-teacher ratio of 19.95 is 20 percent higher than the average of its peer districts and 31 percent higher than the national average. This indicates that CCSD has 20 percent fewer classroom teachers than its peers relative to its student population, and 31 percent fewer teachers than the national average. While this may imply "more efficient" instruction, there is little evidence that larger class sizes are helping the district achieve higher student performance.

Figure 1.11. CCSD pupil-teacher ratio compared to peer districts, 2010-11



Sources: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD); Nevada Department of Education, Quick Stats, February 2011.

CCSD has some low enrollment courses in its high schools that could be converted to the district's virtual learning model in order to reduce costs. There are also positions in magnet schools that could be absorbed into other existing school-based, regional and central office positions.

According to CCSD central office estimates, Educational Computer Strategists (ECS) – teachers located at schools to support instructional technology and the integration with effective teaching – spend a significant amount of their time on computer technical support activities. This is not is not an effective use of their time.

Operational Efficiency

CCSD's operating cost structure (for operational areas such as maintenance, transportation, food services and administrative functions) is closer to its peers, with lower costs in some areas (building maintenance and operations, and food services) and higher in others (student support services). While CCSD has very lean staffing levels in several major operational areas due to efficient operations, other factors contribute to cost levels above industry standards and benchmarks. For example:

- **Custodial Services – High Productivity, High Cost**. Custodial service staff productivity rates (measured in gross square feet per custodian) are above industry standards, and further above levels of most school systems. This is due in part to a highly structured program that standardizes cleaning procedures and supplies. However, primarily because of pay and benefit differences, CCSD's custodial cost is $2.34 per square foot, significantly above the industry benchmark of $1.59.[5]

[5] American School and University Journal, 2009.

- **Building Maintenance – Low Productivity, Low Cost.** CCSD costs for building maintenance (including repairs and maintenance, but excluding custodial services) are lower than benchmarks, but not because the operation is more efficient. The district has several opportunities to significantly improve maintenance staff productivity, but cost reductions obtained through these efficiencies need to be reinvested in a more substantial preventive maintenance program to ensure that buildings and their components meet functional requirements through their expected service life. CCSD devotes 6 percent of its maintenance effort to preventive maintenance, compared to best practice levels of over 50 percent.

- **Energy Management – More Opportunities to Reduce Costs.** The district has an effective energy management program, and many energy conservation measures have been implemented that have helped reduce or hold the line on energy costs. Additional measures and related cost reductions are possible, but up-front investments will be required in most cases.

- **Food Services – High Productivity, Costs Under-represented**. After several years of operating deficits, new district food services management has restored the unit to a surplus and increased its financial stability over the past three years. Food service staffing is highly efficient due to a central kitchen facility that cooks and packages meals for the entire school district. However, the General Fund continues to incur costs for the benefit of the food services operation in the areas of custodial services, utilities, and waste removal. As a result, food service surplus levels – while much improved – do not adequately reflect the true financial performance of the food services operation. This should be changed.

- **Transportation – Moderate Productivity, More Opportunities to Reduce Costs**. Transportation services have become increasingly more efficient with the extensive staggering of bell schedules to increase bus and driver utilization. However, driver work rules provide for a minimum of six hours paid time per day, including up to one hour for breaks, when only four hours are scheduled for some drivers. This contributes to higher compensation and benefit costs. The Transportation Department also has more supervisory positions than industry standards, and has other opportunities for additional cost reductions.

- **Finance and Purchasing – Improved Productivity, More Opportunities Exist**. Finance and purchasing operations have been streamlined with the implementation of new information systems. Processes were re-engineered to take advantage of the technology and reduce work demands. The lack of integration between finance and human resources systems limits the maximum efficiency, particularly for the Human Resources Division, but also for the Finance Department.

During its period of rapid growth, the district provided attractive work schedules and compensation and benefit packages in order to recruit large numbers of new employees each year. Now that the growth has stopped and funding has remained flat, this pay structure is more difficult to afford. In some areas, such as custodial services and transportation, outsourcing is the only option for significantly reducing costs if work schedules, labor rates, and benefits cannot be reduced through collective bargaining.

Information Systems and Management

Human Resources and Student Information Systems

The information systems supporting the Human Resources Division (for online applications, applicant tracking and employee management) are decades old, functionally obsolete, and are not integrated with the district's finance systems. These outdated mainframe systems (and the lack of integration) require significant resources to maintain, and contribute to extensive manual and paper-intensive procedures. Approximately 65 external databases and spreadsheets are currently maintained by the Human Resources Division to support basic transaction processing needs. These should be part of a single, integrated system. As a result, the Human Resources Division is consumed with transaction processing, limiting its ability to effectively support the more strategic human resource needs in the school district.

Primarily because of financial constraints, the district halted the implementation of a new human resources/payroll system it purchased in 2004. Current efforts are underway to select a vendor to assist in implementing the system, but funds have not been budgeted for 2011-12 to move this effort forward.

The district's student information management system is also obsolete. The current software, Schools Administrative Student Information (SASI) is no longer being upgraded or supported by the vendor. This creates a significant support issue and related risks for the district. Due to its outdated technical design, the SASI application is resource-intensive and not efficient compared to today's web-based student information management systems. The district has taken steps towards replacing SASI but more work and a significant investment will be required. This system should be replaced.

Information Management

Currently, the district's data are fragmented and often duplicated among computer applications, departments and business processes, residing on diverse data platforms (or on paper forms) and managed by different staff with varying skill levels. Although there are procedures in place for data management in those systems under the purview of Technology Information Systems Services, CCSD does not have a documented, district-wide enterprise data management framework. As a result, the district spends significant time and resources to make sure data are accurate, complete, consistent and timely. This was experienced firsthand by the review team during this study with respect to student achievement data and facilities management data.

The district does not currently track program/intervention participation data by student, and only a few programs are tracked at the school level. This limits the ability of CCSD to determine which programs are working or measure a Return on Investment (ROI).

The district is currently developing a data dashboard to support the efficient analysis of student achievement data. Part of this study involved the development of a similar analytical prototype for one of the operational areas. CCSD should expand the data dashboard to all educational and operational areas, and compare its performance to established performance standards, industry standards and benchmarks to support performance accountability. This will provide greater transparency and public

understanding of important performance information, and will support the engagement of CCSD management in the process of continuous improvement.

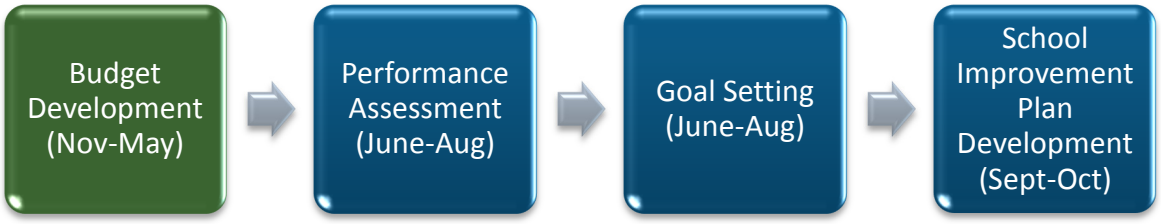
With the Superintendent's decision to place more importance on technology in the district's organization structure, CCSD will be better positioned to address information management issues. In 2011-12 this function will be reporting directly to the Superintendent.

Budget Process and Transparency

CCSD's budget process and calendar have been adversely affected in recent years by delayed information from the state legislature regarding appropriation levels. While the district does not have control over this, it does have control over other factors that can improve the budget process and the transparency of the annual budget report.

- CCSD's budget development activities occur before the annual academic planning processes instead of after. Because of this sequencing, the budget process does not have the opportunity to strategically meet student needs. This should be changed (see Figures 1.12 and 1.13).

Figure 1.12. Current sequencing of CCSD planning and General Fund budgeting activities



Source: CCSD 2010-11 District Improvement Plan; CCSD Budget Calendar; Interviews with CCSD principals and district administrators

Figure 1.13. Proposed sequencing of CCSD planning and General Fund budgeting activities

Source: Gibson Consulting Group, Inc.

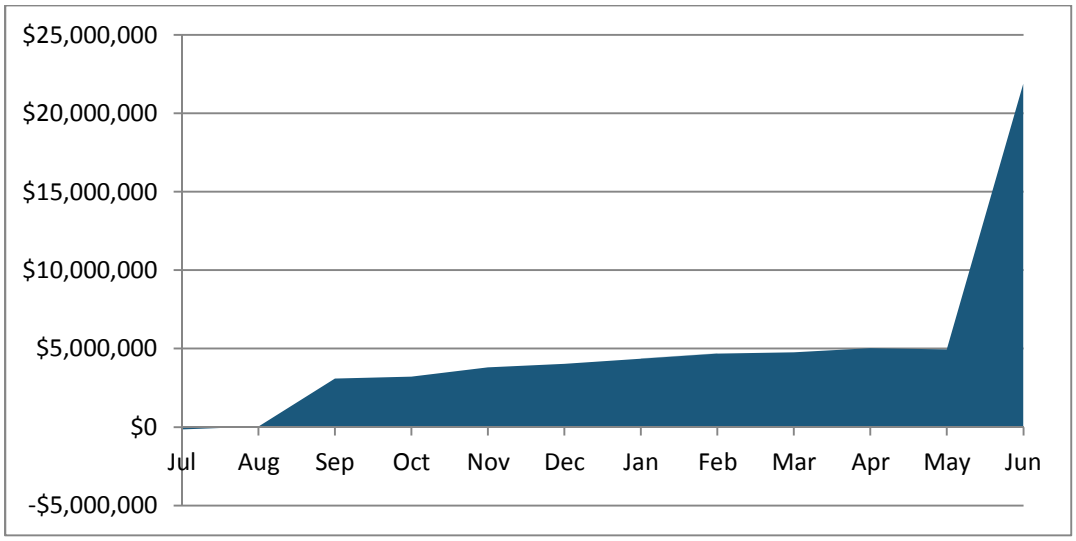
- The district's account codes are not configured to track expenditures against stated goals, targeted programs, or spending priorities, limiting the ability of CCSD to calculate a ROI for its key programs.

- Most schools are locked into staffing and spending levels by prescribed funding formulas. Only the 30 Empowerment Schools have the flexibility to reallocate resources to meet identified needs. District efforts are underway to increase the number of Empowerment Schools.

- The budget document does not demonstrate a level of efficiency or effectiveness for the organization as a whole or its key functions. Performance measures currently disclosed in the budget are essentially operating statistics that reflect volume of effort but not performance. Some departments track efficiency and other performance measures internally, but this effort needs to be conducted system-wide and incorporated into the budget process and resulting budget document.

The district's budget process and budget monitoring process needs to be improved for federal grants. In 2010-11, a significant portion of the district's Title I expenditures occurred during the last month of the fiscal year (Figure 1.14). While some of these funds are used for the subsequent fiscal year, this spending pattern indicates that Title I expenditures are not well planned and are not effectively supporting strategic needs of the district.

Figure 1.14. CCSD's expenditures of Title I funds by month for FY 2011



Source: FY 2011Title I expenditure report provided by the Finance and Operations Division

Recommendations

This report contains recommendations to reduce costs as well as re-purpose existing expenditures to support CCSD's goals. Other recommendations relate to the improvement of management practices in the district. Some recommendations require investments, but most of these investments are non-recurring. The major recommendations can be summarized under four categories: (1) cost reduction, (2) re-purposing, (3) investments, and (4) management practices.

(1) Cost Reduction. For purposes of this study, cost reduction recommendations estimated the impact on the district's General Fund, which is the fund that supports most of CCSD's operating expenditures. The General Fund is also the fund that is affected the most by state appropriations. Some of these cost reductions, such as those related to energy management, will require up-front investments. Major recommendations related to cost reductions are summarized as follows:

- Revise bus driver work rules and further stagger bell schedules to increase staff productivity, and reorganize the Transportation Department to reduce administrative staff levels.
- Implement additional energy conservation measures – some requiring up-front investments.
- Recover General Fund expenditures incurred on behalf of the food services fund.
- Convert low-enrollment Advanced Placement courses to the district's virtual learning model.
- Reduce the amount of non-standard purchases.
- Consider outsourcing opportunities to reduce costs (e.g., opportunities in custodial, transportation, and landscaping).

(2) Re-purposing. Re-purposing recommendations suggest a reallocation of existing expenditures to better support district needs and goals. It is assumed that cost reductions generated from increased efficiencies, fewer choices of education programs, student assessments and professional development offerings, or improved alignment with district priorities will be offset by needed investments in the same program area or department. Major recommendations to re-purpose CCSD expenditures are summarized as follows:

- Coordinate the selection of and focusing on a smaller number of effective educational programs and interventions, including instructional software, that are aligned with the district's curriculum and student needs.
- Standardize and enhance student assessment instruments so that a district-level analysis can be performed, comparisons can be made across schools, and individual students moving to different schools will be assessed in the same way.
- Coordinate and focus teacher professional development on a smaller number of effective programs that are aligned with academic goals and linked to the district's highest priorities. This will help ensure that teachers have the knowledge and skills needed to support student learning and achievement.
- Improve maintenance productivity through expanded work order planning, supply management, and better use of existing software, and reinvest cost reductions in the district's underfunded preventive maintenance program.
- Re-purpose the Educational Computer Strategist position – separating technical support, which is the responsibility of technology, from instructional support. This will more appropriately match skill sets to the school's needs, and better align instructional technology with the district's academic programs and priorities.

(3) Investments. Several recommendations in this report require an investment by CCSD. Most of these investments are non-recurring projects, but may require some additional staff to support in future years. The major investment recommendations are:

- Develop an enterprise data management framework to support data integrity, consistency, and data-driven decision making throughout the district.
  - Establish enterprise data standards
  - Establish and document enterprise data processes
  - Establish and implement clear staff roles and responsibilities for data management
  - Establish efficient data integration across all mission critical systems

- Follow through with the decision to implement the district's human resources/payroll system and integrate it with the finance system to improve operating efficiency and data quality. This will allow Human Resources Division staff to devote more time to supporting the strategic needs of the district.

- Upgrade the district's student information management system to meet current district requirements and avoid the risks associated with the current product no longer being supported by the vendor.

- Expand efficiency measurement and the use of data dashboards to all operational areas and compare resulting data to district performance standards, industry standards and benchmarks to support performance accountability.

- Increase the capacity of the district's program evaluation unit to support the collection and analysis of program and intervention data so that the district can measure its academic ROI in specific programs at the student-, class-, grade-, school-, performance zone-, and district-levels.

(4) Management Practices. Recommendations to improve management practices require little or no investment, although they will require effort on the part of CCSD staff. The major management recommendations are summarized as follows:

- Develop and implement a decision-making framework so that school, regional, and central office staff will have a consistent understanding about what decisions are site-based and which are to be made centrally.

- Implement cross-functional teams to better coordinate academic programming and decision making in the district's new performance zone organization structure.

- Incorporate efficiency measurement into the budget process and budget reporting to increase the transparency of spending by operational areas, academic programs, and schools.

- Align federal grants financial management under the Deputy Chief Financial Officer to improve budget planning and control so that grants can more effectively support district priorities and student needs.

- Evaluate CCSD's behavior and continuation schools and their entry and exit procedures. Based on the results, pursue solutions to improve the efficiency and effectiveness of these schools and discipline management practices across all schools.

Because of the timing of this study, which was completed two months into the 2011-12 fiscal year, most of the cost reduction opportunities will not be realized until the 2012-13 fiscal year. District management should incorporate these recommendations into its planning efforts and initiatives, and consider them in the upcoming 2012-13 budget process that begins in November 2011. However, it may be feasible to pursue some recommendations during the 2011-12 fiscal year.

Table 1.5 provides a summary of the fiscal impact of the recommendations contained in this report. Once fully implemented, the recommendations will result in annual General Fund net cost reductions of approximately $52 million per year. Investments of $60.5 million will need to be made to achieve some of the cost-reductions (energy management) as well as the investment recommendations listed above. Other recommendations to re-purpose the district's spending are assumed to have a neutral fiscal impact as the potential cost reductions (of at least $25 million) are re-invested. Over the next five years, the cumulative fiscal impact of all recommendations contained in this report is a net cost reduction of approximately $162.1 million, or an average of $32.4 million per year.

Table 1.5. Summary of fiscal impact for recommendations

Fiscal Impact	Amount
Non-recurring Investments	($60,569,921)
Net annual cost reduction after full implementation	$52,001,391
Five-year net fiscal impact	$162,110,284
Estimate of annual amounts re-purposed for other use (in addition to net annual cost reduction)	>$25,000,000

Source: Gibson Consulting Group, Inc.

Table 1.6 on the following pages lists all recommendations by educational and operational area, and the subsequent fiscal impact over the next five years.

Table 1.6. Detailed fiscal impacts of recommendations

Recommendation	Non-Recurring Investments	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Academic Programs and Services							
3-1.1. Develop cross-functional teams to better coordinate programs and services.	$0	$0	$0	$0	$0	$0	$0
3-1.2 Use outside assistance for curriculum development essential for implementation of Common Core State Standards.	$0	($225,000)	($225,000)	($225,000)	($225,000)	($225,000)	($1,125,000)
3-1.3 Limit the number of core and supplementary instructional programs.	$0	$0	$0	$0	$0	$0	$0
3-2.1. Reduce the number of assessments and agree on common district wide interim and early diagnostic assessments.	$0	$0	$0	$0	$0	$0	$0
3-2.2. Develop and implement short-cycle formative assessments.	$0	$0	$0	$0	$0	$0	$0
3-2.3. Fully utilize the capabilities of INFORM and require district-wide use.	$0	$0	$0	$0	$0	$0	$0
3-3.1. Coordinate professional development services to improve focus at the school level, reduce duplication of effort, and more effectively integrate funding streams to address district priorities.	$0	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$7,500,000
3-3.2. Adopt practices to increase the effectiveness of professional development in improving teacher skills and practices.	$0	$0	$0	$0	$0	$0	$0
3-4.1. Mandate implementation of the district's Response to Instruction (Response to Intervention; RTI) system in all schools.	$0	$0	$0	$0	$0	$0	$0
3-5.1. Convert low enrollment Advanced Placement courses to CCSD's virtual learning model.	$0	$2,928,000	$2,928,000	$2,928,000	$2,928,000	$2,928,000	$14,640,000
3-5.2. Eliminate both the theme coordinator and recruiting counselor positions at the district's magnet schools.	$0	$1,806,469	$1,806,469	$1,806,469	$1,806,469	$1,806,469	$9,032,345

Recommendation	Non-Recurring Investments	2012-13	2013-14	2014-15	2015-16	2016-17	Total
3-5.3. Evaluate CCSD's behavior and continuation schools, the referral and exit procedures, and the impact on student performance and other outcomes.	$0	$0	$0	$0	$0	$0	$0
3-6.1. Enhance program evaluation capacity to support calculation of Return on Investment in academic programs and interventions.	$0	($2,500,000)	($2,500,000)	($2,500,000)	($2,500,000)	($2,500,000)	($12,500,000)
Budget Process and Transparency							
4.1 Change the sequencing of the budget and planning processes and establish formal links between them.	$0	$0	$0	$0	$0	$0	$0
4.2. Assign account codes to specific programs, interventions, and district priorities to demonstrate the alignment to spending and to support a ROI calculation for district initiatives.	$0	$0	$0	$0	$0	$0	$0
4.3. Modify and expand the Empowerment School budget approach to all schools, allowing schools the flexibility to allocate resources to best meet student needs.	$0	($140,000)	($140,000)	$0	$0	$0	($280,000)
4.4. Incorporate efficiency measurement into the budget process, so that the justification for spending levels will be more transparent.	($750,000)	($100,000)	($100,000)	($100,000)	($100,000)	($100,000)	($1,250,000)
4.5. Enhance transparency and usefulness of the budget document by presenting budgets at functional and school levels, and by providing explanations of major budget and staffing variances.	$0	$0	$0	$0	$0	$0	$0
4.6. Consider the purchase of budgeting module after upgrade of Human Resources legacy systems.	*	*	*	*	*	*	*

Recommendation	Non-Recurring Investments	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Organization and Management							
5-1.1. Improve the monitoring of customer service and satisfaction.	($50,000)	$0	$0	$0	$0	$0	($50,000)
5-1.2. Develop and implement a district-wide decision-making framework.	$0	$0	$0	$0	$0	$0	$0
Financial Management							
5-2.1. Re-assign the fiscal component of the Grants Department to report to the Deputy Chief Financial Officer and improve controls over grant fund spending.	$0	$0	$0	$0	$0	$0	$0
5-2.2. Reduce the amount of non-standard purchases in the district and implement spending controls.	$0	$1,950,000	$1,950,000	$1,950,000	$1,950,000	$1,950,000	$9,750,000
5-2.3. Create a position of Technology Buyer to assist with technology purchasing in the district.	$0	($81,600)	($81,600)	($81,600)	($81,600)	($81,600)	($408,000)
5-2.4. Negotiate language in the collective bargaining agreements to provide CCSD access to health benefits plan performance information.	$0	$0	$0	$0	$0	$0	$0
5-2.5. Periodically conduct audits to verify eligibility of health benefits plan dependents.	*	*	*	*	*	*	*

Recommendation	Non-Recurring Investments	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Human Resources							
5-3.1 Implement integrated systems and streamline processes in HR.	$0	$165,000	$165,000	$165,000	$165,000	$165,000	$825,000
5-3.2 Improve the ability of HR to support an efficient process for attracting and retaining highly-talented staff.	$0	$0	$0	$0	$0	$0	$0
5-3.3 Reduce the amount of paper produced, routed and stored in and on behalf of HR.	$0	$0	$0	$0	$0	$0	$0
5-3.4 Give preference to organization configurations that promote collaboration, ease the burden of applicants, reduce duplication of effort by HR employees and provide exceptional customer service to employees.	$0	$0	$0	$0	$0	$0	$0
Technology							
5-4.1. Create and implement an enterprise data management framework.	($2,100,000)	($586,000)	($586,000)	($586,000)	($586,000)	($586,000)	($5,030,000)
5-4.2. Procure and implement a robust and integrated SIS	($15,181,283)	($1,487,486)	($1,524,674)	($1,562,790)	($1,601,860)	($1,641,907)	($23,000,000)
5-4.3. Fully implement the Human Resource and Payroll modules of SAP	($10,000,000)	$0	$0	$0	$0	$0	($10,000,000)
5-4.4. Develop criteria to identify and select instructional and operational software programs.	$0	$0	$0	$0	$0	$0	$0
5-4.5 Phase out Educational Computer Strategist positions and re-purpose through separate functions for technical and instructional support.	$0	$0	$0	$0	$0	$0	$0

Recommendation	Non-Recurring Investments	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Facilities Management							
5-5.1. Increase wrench time of technicians.	($800,000)	$0	$0	$0	$0	$0	($800,000)
5-5.2. Increase productivity of facilities technicians and re-purpose cost reductions to support preventive maintenance.	($450,000)	$0	$0	$0	$0	$0	($450,000)
5-5.3. Outsource selected landscaping tasks to perform additional needed services at the same cost.	$0	$0	$0	$0	$0	$0	$0
5-5.4 -5.15 Implement additional energy conservation measures.	($30,099,638)	$7,988,567	$15,977,135	$15,977,135	$15,977,135	$15,977,135	$41,797,469
5-5.16.Outsource of custodial services operation to a private service firm.	$0	$5,200,000	$10,400,000	$10,400,000	$10,400,000	$10,400,000	$46,800,000
Transportation							
5-6.1. Reorganize the Transportation Department to reduce supervisory staff.	$0	$448,718	$448,718	$448,718	$448,718	$448,718	$2,243,590
5-6.2. Revise work rules for bus drivers and revise bell times to improve scheduling efficiency.	$0	$2,850,576	$2,850,576	$2,850,576	$2,850,576	$2,850,576	$14,252,880
5-6.3. Develop guidelines to facilitate the least restrictive mode of transportation for special needs students.	$0	$700,000	$1,260,000	$1,680,000	$2,030,000	$2,310,000	$7,980,000
5-6.4. Consider outsourcing transportation service to reduce total cost.	($1,139,000)	$0	$7,602,000	$8,744,000	$9,875,000	$11,000,000	$36,082,000
Food Services							
5-7.1. Allocate allowable General Fund costs to the Food Service Fund.	$0	$2,900,000	$5,800,000	$5,800,000	$5,800,000	$5,800,000	$26,100,000
Total	**($60,569,921)**	**$23,317,244**	**$47,530,624**	**$49,194,508**	**$50,636,438**	**$52,001,391**	**$162,110,284**

Note: Amounts in parenthesis represent investments.

*Cost / Reduction could not be determined because it depends on future events or data was not available.

Report Organization

The remainder of this report is organized into the following chapters:

- Chapter 2 – Student Performance Analysis
- Chapter 3 – Academic Programs and Services
- Chapter 4 – Budget Process and Transparency
- Chapter 5 – Operational Cost Efficiency Review

Chapter 2 – Student Performance Analysis

Introduction

This chapter describes student performance in the Clark County School District (CCSD) and compares it to that of three peer districts that have similar student populations but higher academic achievement. It highlights the findings from an extensive analysis of student scores over the past six years on state proficiency exams and English fluency assessments. This description of proficiency rates, achievement gaps among student subgroups, and trends over time shows that student performance remains far below state standards and CCSD's own targets, and substantial achievement gaps have persisted.

In addition, this chapter describes the factors that peer districts attribute to their success. These are offered as recommendations to assist CCSD in taking dramatic steps to significantly improve student academic achievement.

Findings included in this chapter summarize two separate research reports regarding student performance in CCSD. The report, *Analysis of Student Performance,* provides detailed analyses of CCSD student proficiency rates and English fluency results, broken down by student subgroups and grade levels. The *Comparative Analysis of Academic Performance* describes how the three peer districts were selected and compares their student performance and trends over time with those of CCSD for reading and math, limited English proficient (LEP) students, Advanced Placement participation and test scores, PSAT scores, and graduation and dropout rates. It also provides a detailed description of peer district efforts to improve their students' performance.

Summary of Key Findings and Recommendations

The analysis of CCSD student performance data and the experiences of peer districts clearly justify the CCSD Board of Trustees' recent decision to take dramatic steps to significantly improve student achievement. Superintendent Jones has outlined an aggressive strategy to accelerate the pace of growth in *A Look Ahead, Phase I: Preliminary Reforms Report*[6], and many initiatives were underway before this study commenced. The review team endorses the direction of the district's new leadership, and believes that the recommendations contained in this report will help support a new era of educational reform at CCSD.

Based on an extensive examination of the CCSD student achievement data and the comparative analysis of CCSD performance and that of peer districts, the review team makes the following recommendations for future CCSD efforts:

[6] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

1. **Curriculum consistency and alignment.** A common success factor of the peer districts was the consistency and alignment across its schools in curriculum and programs offered. As stated by one interviewee: "We were spending millions and getting very inconsistent results…It is a fiduciary responsibility [to select a program] and go with it—implement it with fidelity, and give it three to five years to evaluate it over time." Even in the districts that were more decentralized, it was their structure of networks and consistent communication that helped to keep schools and teachers moving in the same direction. Based on findings contained in *Chapter 3 – Academic Programs and Services* of this report, CCSD's lack of alignment and consistency are critical issues and several recommendations are made in that chapter to develop cross-functional teams, reduce the number of academic programs and interventions, and align professional development with the curriculum.

2. **Focused professional development and support.** Considered critical to peer districts' improved performance, high quality professional development is offered through ongoing sessions, coaching, support from experts, and resources provided in-person and on-line. Professional development is focused on specific programs and student populations, including LEP students. As discussed in *Chapter 3 – Academic Programs and Services*, CCSD was found to have overlapping and sometimes conflicting professional development coming from multiple, uncoordinated sources. Recommendations are made to better align and streamline professional development offerings to serve the needs of teachers and students more efficiently and effectively. The district is also realigning its educational support structure from a geographic orientation to one based on performance zones. This will better match and focus district resources and school needs.

3. **Use of data.** In peer districts, assessments are used to identify students in need of support and monitor their progress as well as to determine the most appropriate instruction and interventions. Data are made available to teachers and administrators through generated reports and web portals, and the results of these assessments are regularly discussed. CCSD is already moving in this direction with the development of an academic data dashboard that should help facilitate the types of analysis already taking place in the peer districts. In *Chapter 5 – Operational Cost Efficiency Review,* (*Section 4, Technology*) of this report, a recommendation is made to develop a comprehensive data management framework to ensure that CCSD data going into the dashboards are clean, accurate, and rigidly defined.

4. **Intensive attention to particular subject areas and student subgroups.** The analysis of CCSD data indicates that achievement in science is particularly low and specific subgroups are having the most difficulty attaining proficiency status on state assessments. Redoubled efforts to support their academic achievement is merited for:

    - **Hispanic students.** Hispanic students are the largest subgroup in the CCSD student population. Although the achievement gap between Hispanic and White students has narrowed somewhat over time, it is still substantial. Given that more than one-third of Hispanic students who took the CRT are either non- or limited-English

speakers, increased efforts to support these students in learning English as well as subject matter content could decrease this achievement gap.

- **Black/African American students.** The achievement gap between Black/African American and White students is very large across all subject areas and does not appear to be decreasing over time. Focused attention on the needs of this subgroup is warranted.

- **LEP students.** Additional attention to the needs of the LEP student population is necessary, especially to factors that peer districts report have contributed to their success:

  - **Intense professional development:** In the peer districts, teachers who instruct LEP students receive extensive professional development, both internal to the district and through state certification/endorsement specifically related to this student population (required by law in Florida).
  - **Consistent curriculum and oversight of implementation:** Peer districts ensure that schools have a consistent curriculum and supplemental materials available to all LEP students. Monitoring also takes place to ensure that these programs are implemented as planned and are moving students towards English fluency.
  - **Students in grades kindergarten through two:** Data analysis revealed that these students are the least likely of all grade levels to be fluent in English within CCSD. The proportion of children in grades K–2 who are fluent in English is much smaller in CCSD than in the peer districts. These districts cite their intensive intervention programs for young LEP students as a factor in their overall success.
  - **Students with disabilities.** Generally less than one-fourth of grade 3–8 students with IEPs are proficient in math, reading, and science. For high school, math and science proficiency rates are 15 percent or lower.

- **Retained high school students.** The cohort analysis of the HSPE data revealed a remarkable group of high school students who persisted in retaking the HSPE reading and math exams even after they were retained in grade 10 for one or two years. More than 3,000 students took the math and reading tests in their second tenth grade year and more than 100 took them again in their third tenth grade year. Such perseverance could be acknowledged and rewarded with intensive assistance to help them pass the exams.

5. **Preschool education.** In examining the data used to select the peer districts, it became clear that their grade 3 students perform much better during their first statewide assessments of reading and math than those in CCSD. One potential focus of future efforts

could be on preschool education. In contrast to the 9 percent of CCSD students enrolled in preschool, peer districts enroll from 27 to 68 percent. Given the research on the success of quality preschool in preventing later learning difficulties,[7] CCSD should consider investing in this area, especially given that many of its youngest students are non-English or limited English speakers.

6. **Successful high school completion and college/career readiness.** A consistent theme in the peer districts is the effort to engage students early on in their high school education. By focusing on grade 9 students, dropout rates are lower and students are better prepared for college and careers. As one interviewee stated, "If we lose them in the ninth grade, we lose [them] in graduation." Peer districts have a variety of student engagement, mentoring, and credit recovery programs that begin with identifying at-risk students using an early warning system. CCSD would benefit by adopting some of these practices:

    - **Ninth grade monitoring:** Given that there is no Nevada state assessment for grade 9 students (unlike in Florida and Texas), CCSD could consider analyzing interim assessment and Criterion Referenced Test (CRT) data from grade 8 students as one step toward an early warning system. Analysis of CRT data indicates that the math proficiency rate of grade 8 students is consistently lower than that of other grades and recent results for reading and science show that less than half the students are proficient. In addition, monitoring the proportion of grade 9 students who move on to grade 10 could provide another measure of student engagement in high school.

    - **Positive alternative environments:** In all of the peer districts, staff emphasized the importance of addressing students' needs through choices and a variety of settings. Whether it was through online learning, small learning communities, or specialized magnet school options, providing alternative settings can help motivate students who might otherwise dropout from the traditional high school setting. With the addition of support from mentors and community members, more students can reach graduation in these alternative settings if they are seen as positive environments instead of as a punishment for misbehavior.

Highlights of CCSD Student Performance

CCSD schools' lack of progress in making Adequate Yearly Progress (AYP), a requirement of the *No Child Left Behind Act,* is reason for concern. In Nevada, AYP classifications are made annually based on the

[7] See for example: a) Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The HighScope Perry Preschool study through age 40.* (Monographs of the HighScope Educational Research Foundation, 14). Ypsilanti, MI: HighScope Press.

b) Reynolds, A. J., Temple, J. A., Ou S. R., Arteaga, I. A., White, B. A. B. (2011). School-based early childhood education and age-28 well-being: Effects by timing, dosage, and subgroups. *Science*. Published online June 9, 2011. doi: 10.1126/science.1203618

percentage of students tested, the percentage of students tested who score at or above the proficient level on annual statewide tests, and school attendance or graduation rates.

Table 2.1 describes CCSD schools' 2009–10 AYP status. A total of 44 percent of the schools listed in the Clark County report (not including district charter schools) had the lowest possible AYP rating that the state assigns ("in need of improvement").

Table 2.1. CCSD schools rated *In Need of Improvement* by Level, 2009–10

Type of School	Total Number of Schools	Number *In Need of Improvement*	Percent *In Need of Improvement*
Elementary Schools	219	91	42%
Middle Schools	77	40	52%
High Schools	71	31	44%
Total	**367**	**162**	**44%**

Source: Nevada Department of Education

This section depicts key findings from grades 3–8 on the Nevada Criterion Referenced Test (CRT), grades 9–12 on the High School Proficiency Examination (HSPE), and grades K–12 on the English fluency exams. For most findings, data were available for six years (2005–06 through 2010–11), although for others data were available for only four years (2005–06 through 2008–09).

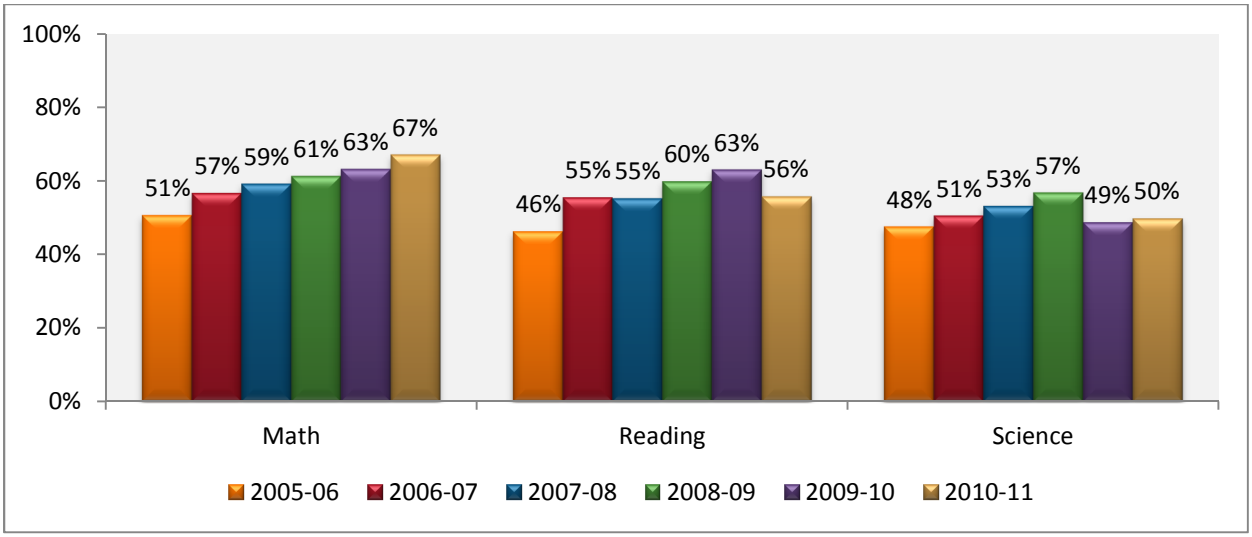
Grades 3–8 Student Performance

To provide an overview of student performance in the elementary and middle school grades, the CRT proficiency rates of students in grades 3–8 have been combined. As shown in Figure 2.1, the overall proportion of CCSD students scoring proficient in math across the years ranged from 51 to 67 percent. For reading, the range was 46 to 63 percent, and for science 48 to 57 percent. Although the tests have been revised in recent years, which resulted in some fluctuation in scores, the overall finding is that many students are not meeting the Nevada standard for performance, which is not rigorous.

According to the National Center for Education Statistics, Nevada's reading tests do not reach the standard for either the Basic or Proficiency level of the National Assessment of Educational Progress (NAEP). In math, Nevada's tests reach the Basic level of performance compared to the NAEP standard.[8]

[8] From http://nces.ed.gov/nationsreportcard/pubs/studies/2011458.asp, retrieved August 10, 2011.

Figure 2.1. CRT proficiency rates, grades 3–8, by subject and year, 2005-06 through 2010-11



Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: The CRT reading and mathematics tests are given each year; the science test is given in grades 5 and 8. The mathematics and science tests were revised in 2009–10, and the reading test was revised in 2010–11.

Note: Sample size = 843,673 (math, all years combined); 843,789 (reading, all years); 278,561 (science, all years).

For the most recent year (2010–11), of students in grades 3 through 8:

- 67 percent were proficient in math
- 56 percent were proficient in reading
- 50 percent were proficient in science

Furthermore, across the grade levels, math proficiency rates have been lowest in grade 8; reading proficiency rates have been lowest in grade 5 (until test revision in 2010–11); and science proficiency rates have been consistently low in both grade 5 and grade 8.

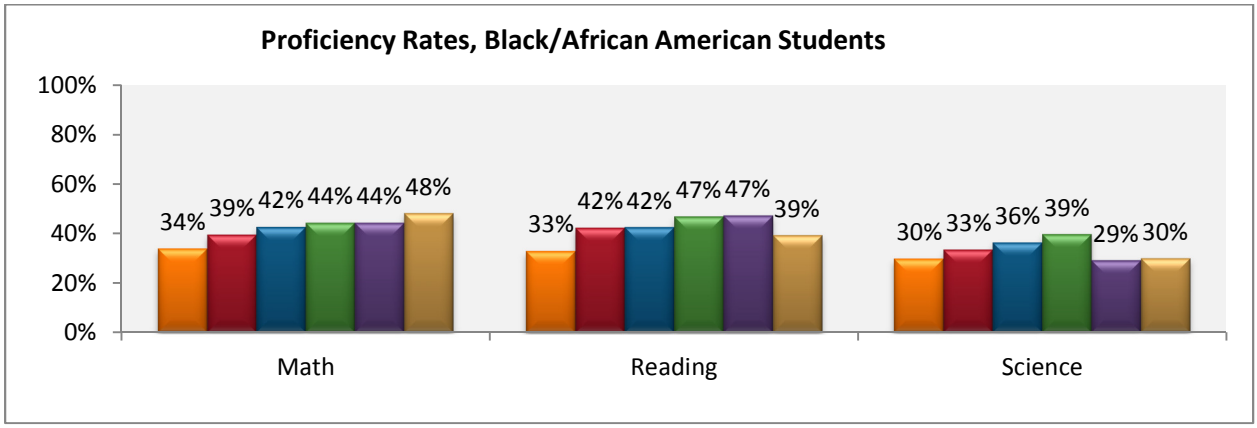
Achievement Gaps

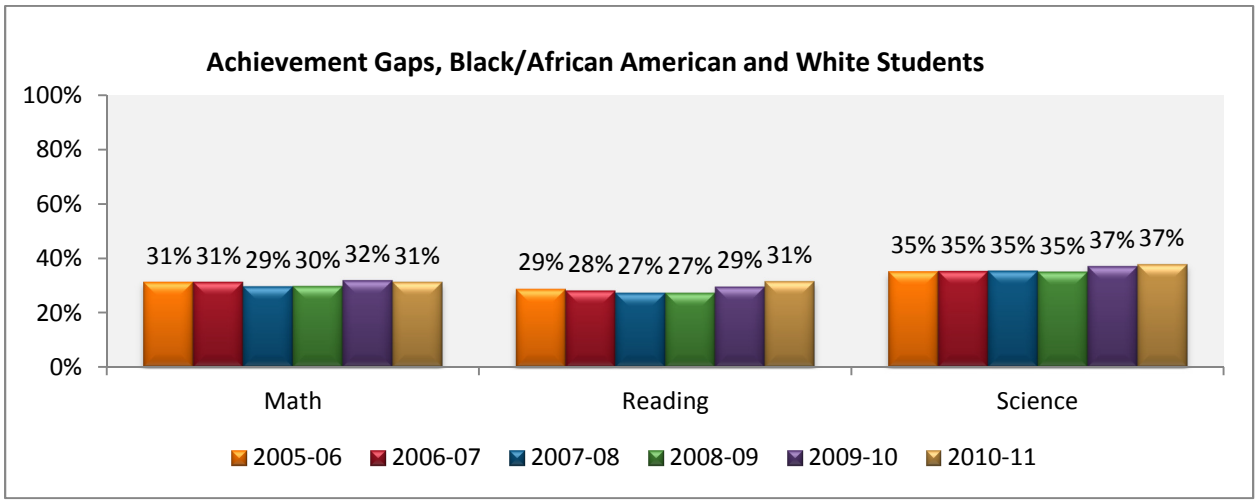
Large gaps in academic performance are evident for racial/ethnic groups and for students eligible for free and reduced-price lunch (FRPL), as well as those designated as LEP and those who have an Individualized Education Program (IEP).

Race/Ethnicity

As displayed in Figures 2.22 and 2.3, across all six years grade 3–8 Black/African American and Hispanic students have consistently lower proficiency rates than White students in math, reading, and science.

Figure 2.2. CRT proficiency rates and achievement gaps between black/African American students and White students, by year and subject





Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap is the difference between the proficiency rate of black/African American and White students in each year. The CRT mathematics and science assessments were revised in 2009–10, and the CRT reading assessment was revised in 2010–11. The definition of the race/ethnicity classifications was revised in 2009–10.

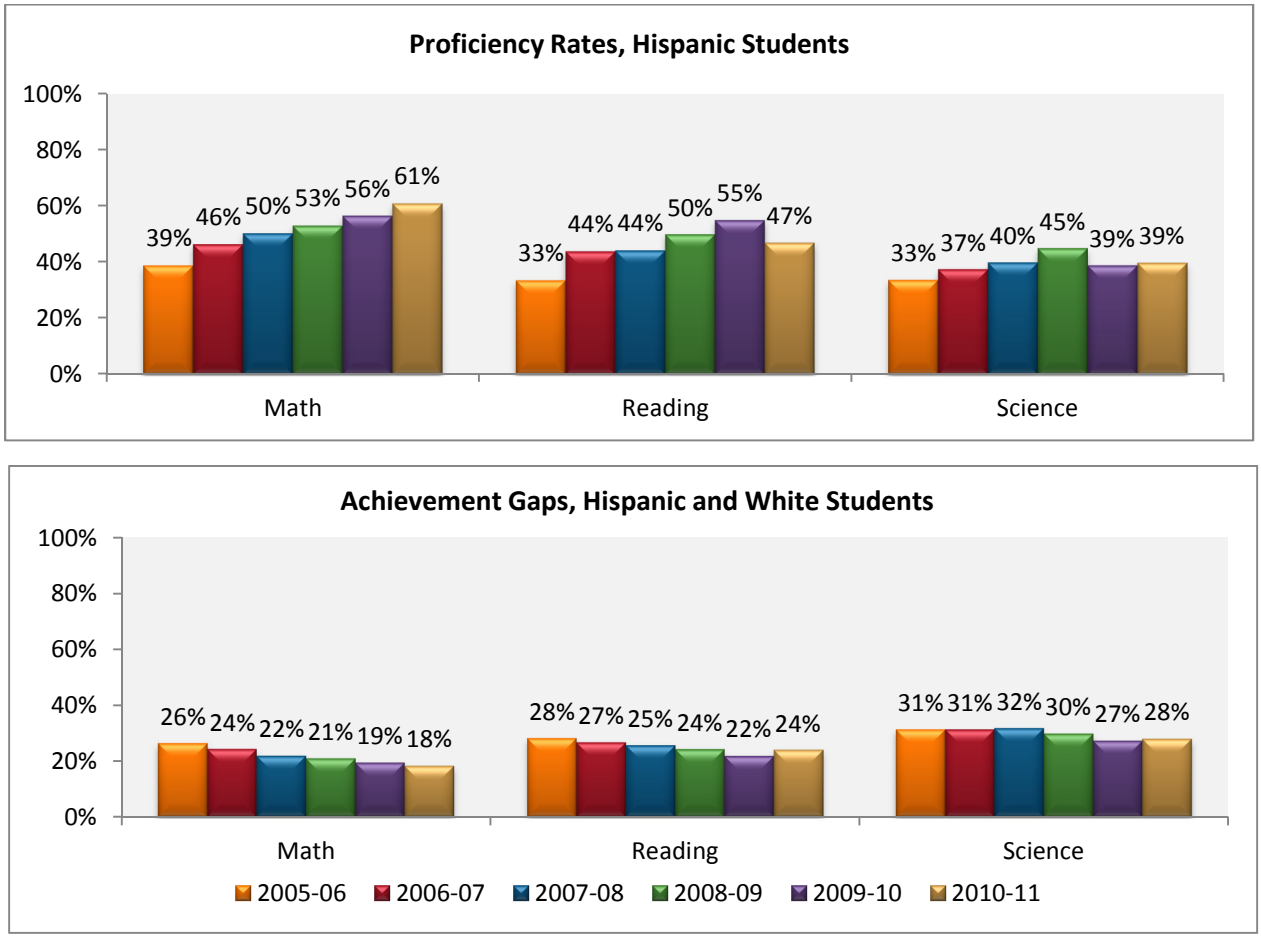
Note: Sample size: Proficiency = 110,861 (math, all years combined); 110,895 (reading, all years); 37,097 (science, all years); Gaps = 394,970 (math, all years); 395,027 (reading, all years); 132,355 (science, all years).

In 2010–11, Black/African American students made up 12 percent of the CCSD student population taking the CRT. The proficiency gap between this subgroup and that of white students was:

- 31 percentage points in math
- 31 percentage points in reading
- 38 percentage points in science

These gaps do not appear to be closing, and may have widened slightly in reading in recent years.

Figure 2.3.CRT proficiency rates and achievement gaps between Hispanic students and White students, by year and subject



Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap is the difference between the proficiency rate of Hispanic and White students in each year.

Note: Sample size: Proficiency = 342,983 (math, all years combined); 342,985 (reading, all years); 110,725 (science, all years); Gaps = 627,092 (math, all years); 627,117 (reading, all years); 205,983 (science, all years).

In 2010–11, Hispanic students comprised 43 percent and White students 30 percent of the CCSD students taking the CRT. The proficiency gap between Hispanic and White students was:

- 18 percentage points in math
- 24 percentage points in reading
- 28 percentage points in science

In general, this gap appears to have narrowed slightly in all subjects across the years, with the greatest gains evident in math. However, the gap widened slightly in 2010–11 from the previous year for reading and science.

Free or Reduced-Price Lunch

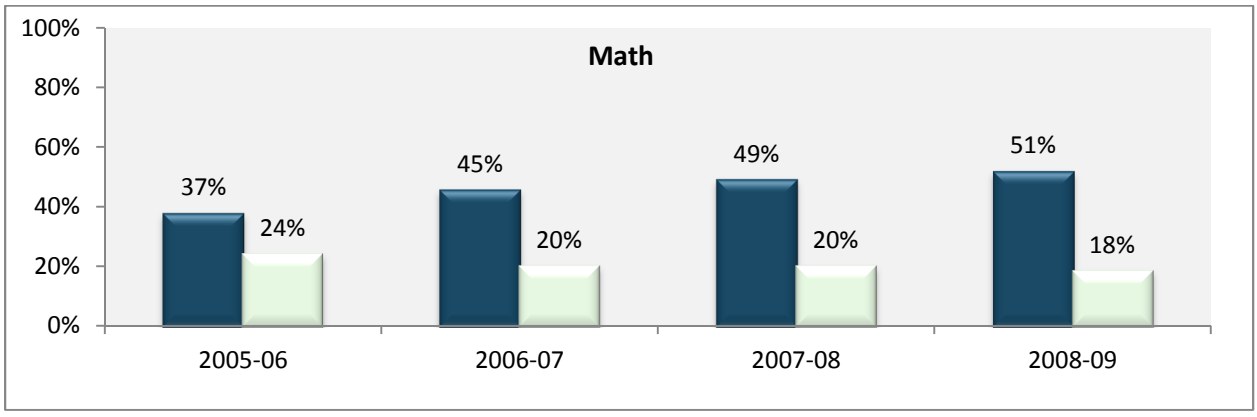
Nearly half (45 percent) of CCSD students taking the CRT were eligible for free and reduced-price lunch (FRPL) in 2008–09, and their performance lagged behind that of their more economically advantaged peers. Figure 2.4 displays both the proficiency rate for FRPL students and the achievement gap between them and their non-eligible peers across the years.

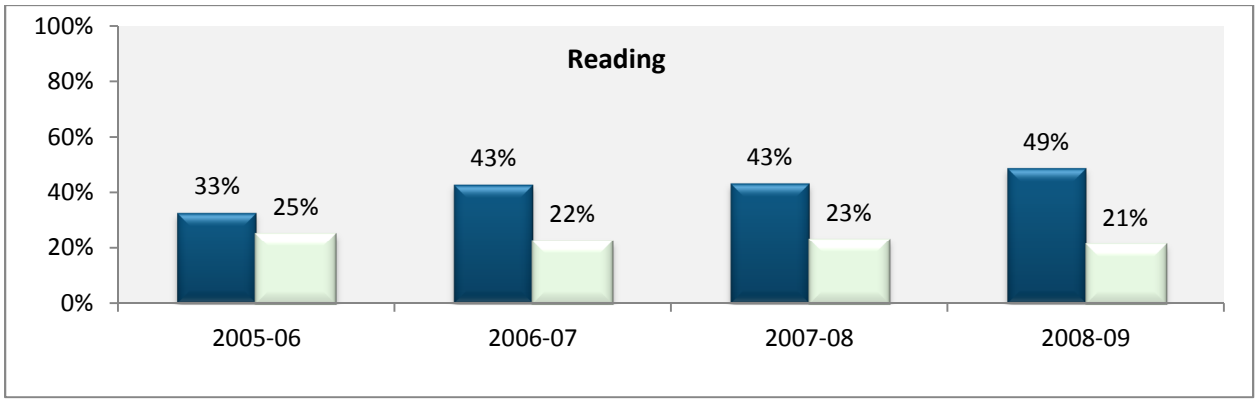
For the most recent year of available data (2008–09), the FRPL-Not FRPL gap was:

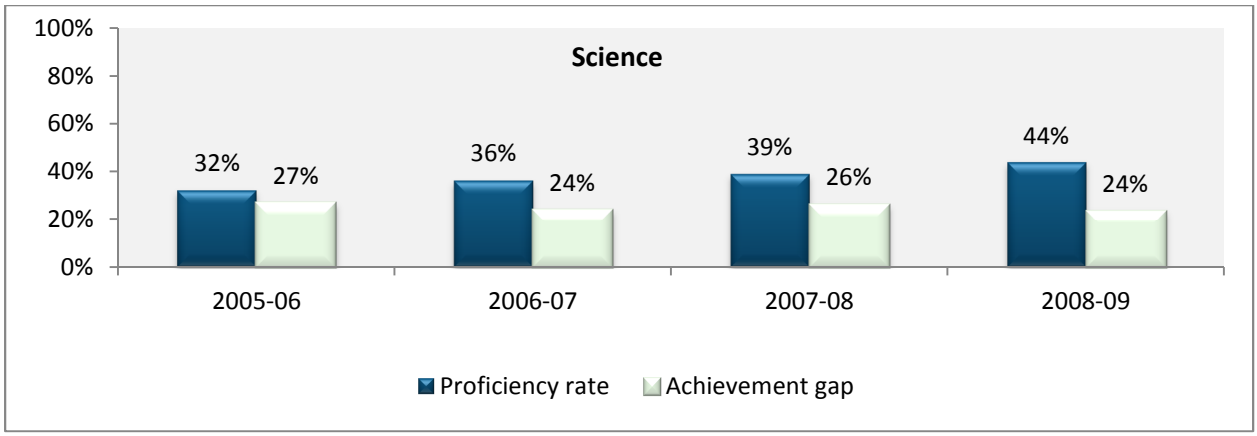
- 18 percentage points in math
- 21 percentage points in reading
- 24 percentage points in science

This gap appears to have narrowed somewhat in both math and reading and has fluctuated for science across the years. Although there has been progress, the gaps are still substantial for CCSD students.

Figure 2.4. CRT proficiency rates and achievement gaps for students qualifying for free and reduced-price lunch (FRPL), by year and subject







Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap is the difference between the proficiency rates of students qualifying and not qualifying for FRPL in each year. FRPL data were only available until 2008–09.

Note: Sample size: Proficiency = 257,266 (math, all years combined); 257,319 (reading, all years); 81,918 (science, all years); Gaps = 569,978 (math, all years); 570,011 (reading, all years); 188,285 (science, all years).

Limited English Proficient

Across six years of available data, students who were either non- or limited-English speakers made up about 16 percent of those taking the CRT and they had consistently lower proficiency rates in math, reading and science.[9] Figure 2.5 presents both the proficiency rate for LEP students and the gap between this subgroup and their English-speaking peers.

In 2010–11, of LEP students in grades 3 through 8:

- 37 percent were proficient in math
- 18 percent were proficient in reading
- 7 percent were proficient in science

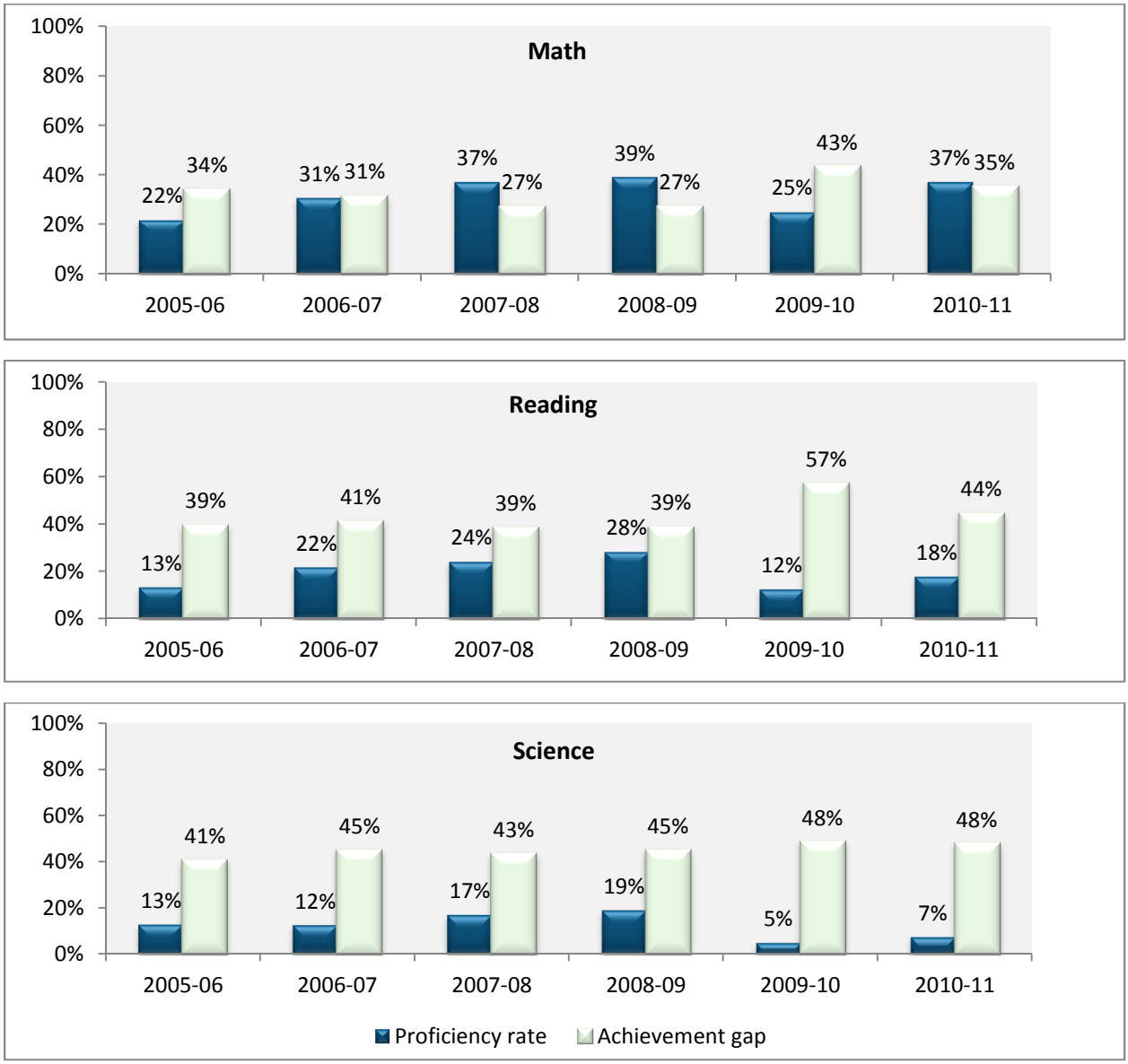
There were also large achievement gaps between LEP and non-LEP students:

- 35 percentage points in math
- 45 percentage points in reading
- 48 percentage points in science

In math and reading, the gap between LEP and non-LEP students became much larger in 2009–10, after the definition of LEP was revised. In science, the gap has remained fairly constant.

[9] The definition of the LEP designation was revised in 2009–10, and the percentage of students designated as LEP in 2009–10 and 2010–11 was lower than it had been in previous years. For example, in 2008–09, roughly 19 percent of students taking the CRT in grades 3–8 were designated as LEP, compared to about 11 percent in 2009–10.

Figure 2.5. CRT proficiency rates and achievement gaps for students designated as LEP, by year and subject



Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap is the difference between proficiency rates of students designated and not designated as LEP.

Note: The CRT math and science exams and the definition of LEP were revised in 2009–10. The CRT reading exam was revised in 2010–11.

Note: Sample size: Proficiency = 133,105 (math, all years combined); 133,085 (reading, all years); 35,628 (science, all years); Gaps = 832,156 (math, all years); 832,249 (reading, all years); 274,421 (science, all years)

Students with Individualized Education Programs (IEPs)

Approximately 10 percent of CCSD students taking the CRT over the years had been identified as having a disability and had been provided an individualized education program (IEP). As shown in Figure 2.6,

these students consistently had low proficiency rates in math, reading, and science, and may be falling further behind students without IEPs in math and reading.

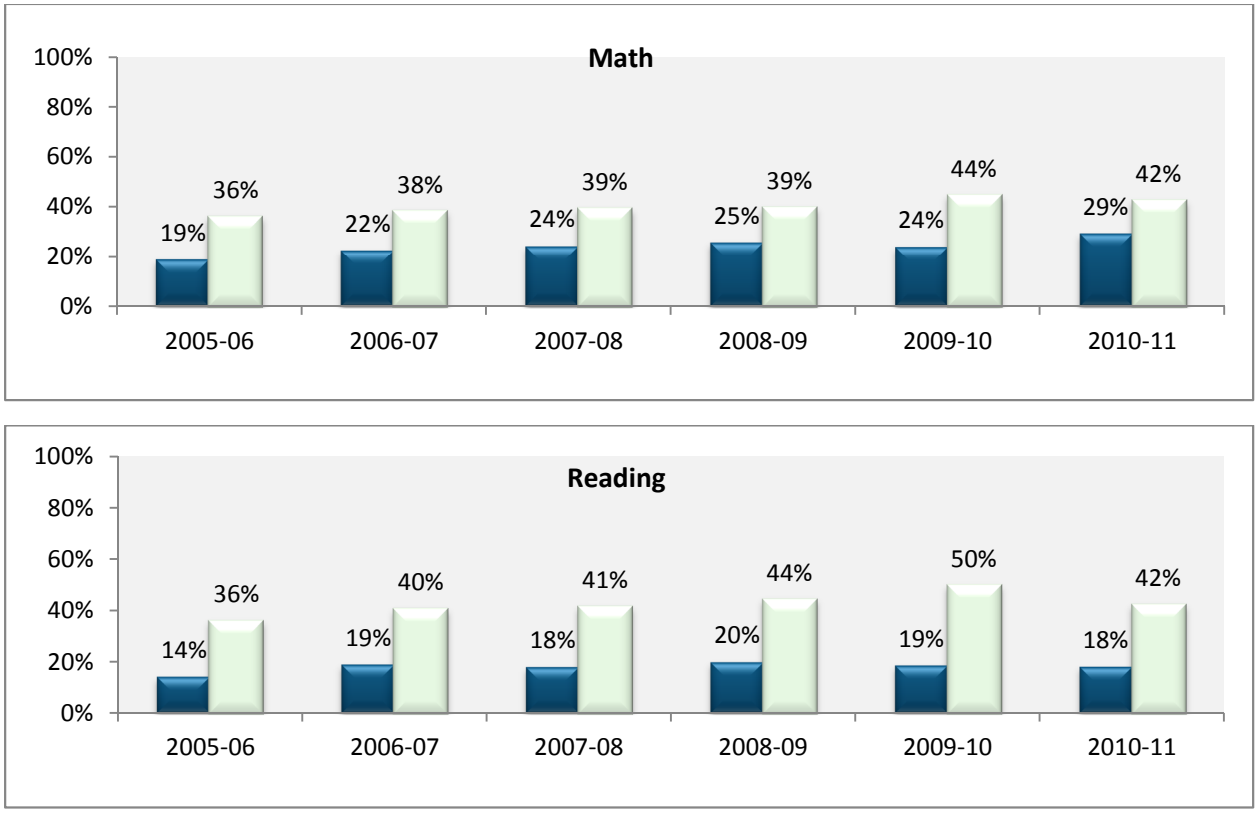
In 2010–11, of students with IEPs in grades 3 through 8:

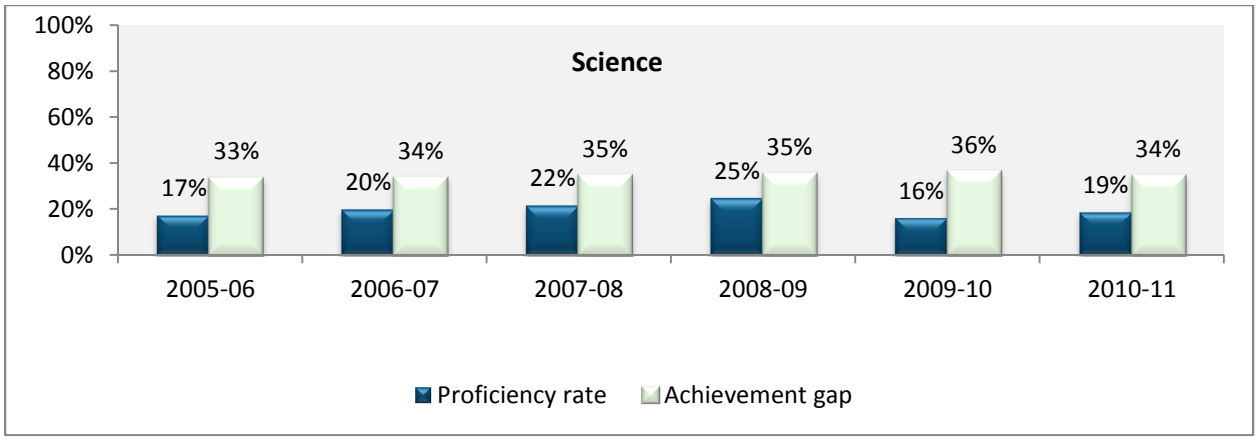
- 29 percent were proficient in math
- 18 percent were proficient in reading
- 19 percent were proficient in science

There were also large achievement gaps between students with and without IEPs:

- 42 percentage points in math
- 42 percentage points in reading
- 34 percentage points in science

Figure 2.6. CRT Proficiency Rates and Achievement Gaps for Students with IEPs, by Year and Subject





Source: Criterion Referenced Test data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap shown is the difference between the proficiency rates of students with and without IEPs.

Note: The CRT math and science exams were revised in 2009–10. The CRT reading exam was revised in 2010–11.

Note: Sample size: Proficiency = 79,295 (math, all years combined); 79,321 (reading, all years); 25,955 (science, all years); Gaps = 832,156 (math, all years); 832,249 (reading, all years); 274,421 (science, all years).

Grades 10–12 Student Performance

In Nevada, the mathematics, reading, and science High School Proficiency Exams (HSPE) are administered for the first time to grade 10 students. Students who either did not pass or missed the test in grade 10 are then re-administered the test multiple times throughout grades 11 and 12; until they earn a proficient score (that is, the student meets or exceeds the state standard). The writing HSPE follows a similar pattern, except it is administered for the first time to grade 11 students.

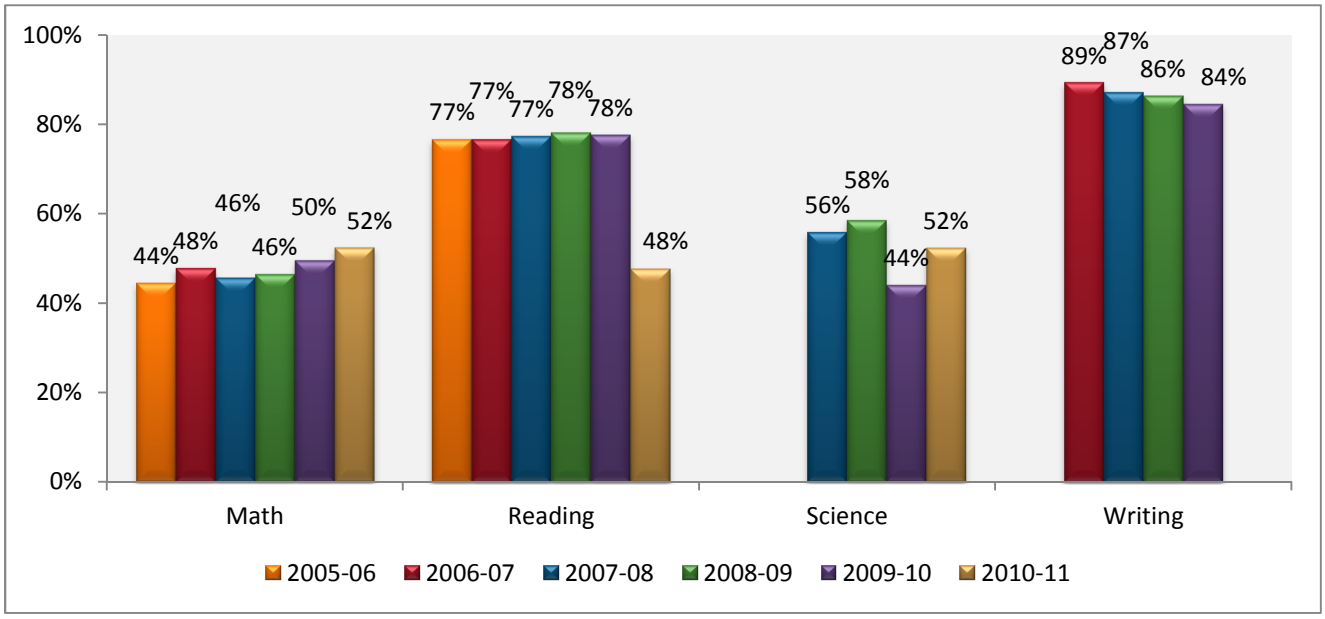
Two types of analyses were conducted on the high school data: 1) an analyses of first year performance on the mathematics, reading, science, and writing exams; and 2) a cohort analyses for students over a three-year period for the subjects of mathematics and reading to see how many students eventually passed these exams. For most students, this covers their grade 10, 11, and 12 high school careers.

First Year Performance

The first year analysis describes the percent of grade 10 students who passed the HSPE mathematics, reading, science tests on their first attempt, because the goal is for them to pass during their first year and then move on to master the curriculum for grades 11 and 12. For writing, grade 11 results are analyzed because this is the first year that exam is offered.

As shown in Figure 2.7, across all years, approximately 50 percent of grade 10 students passed the math and science exams on their first attempt. Until the reading test was changed in 2010–11, three-fourths of the students were passing. On the new test, only 48 percent passed. For writing, the findings are more positive, with a passing rate of 84 percent or more; however these rates have declined each year the writing test has been administered.

Figure 2.7. HSPE proficiency rates, by subject and year



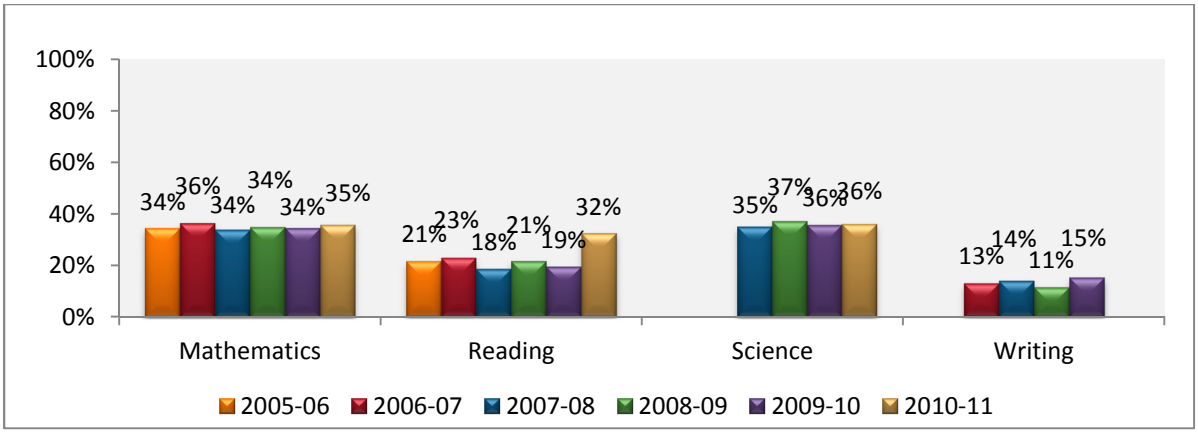
Source: High School Proficiency Exam data files provided by CCSD, 2005-06 to 2010-11

Note: The HSPE reading, mathematics, and science tests are given to grade 10 students; the writing test is given to grade 11 students. The HSPE mathematics test was revised in 2009–10; the HSPE reading test was revised in 2010–11.

Note: Sample size = 128,493 (math, all years); 126,035 (reading, all years); 85,689 (science, all years); 72,160 (writing, all years).

Similar to the elementary and middle school grades, large achievement gaps are present for grade 10 students. Figures 2.8 and 2.9 present the proficiency rates and achievement gaps for Black/African American students and Hispanic students on the four HSPE exams across the years. The gaps are more pronounced in math and science and do not appear to be closing.

Figure 2.8. HSPE achievement gaps for Black/African American students, by year and subject

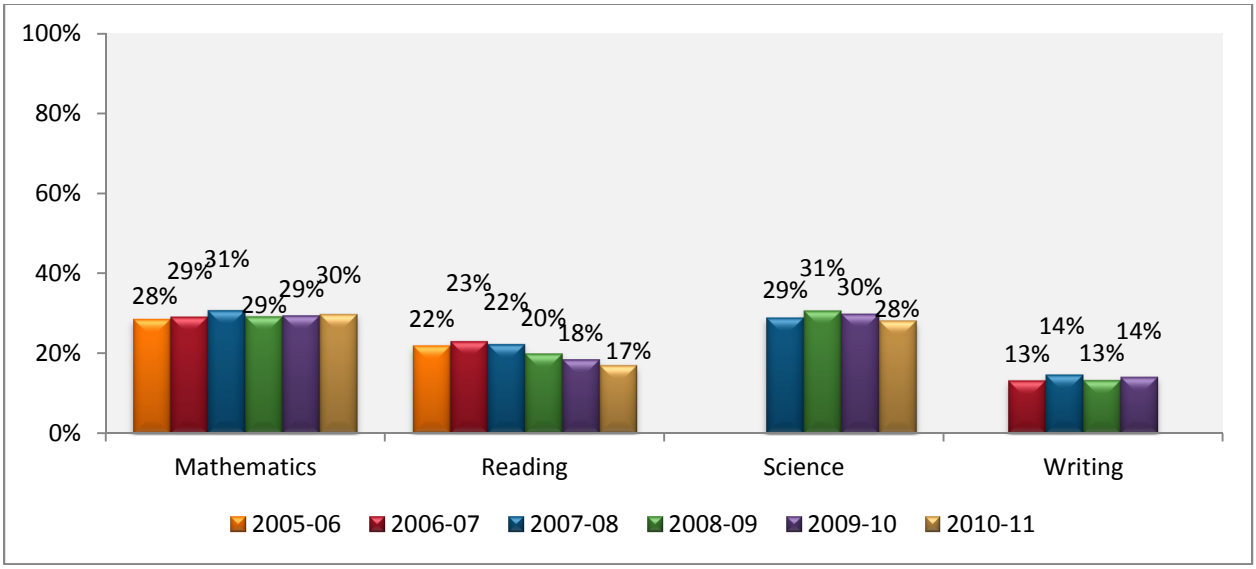


Source: High School Proficiency Exam data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap shown is the difference between the proficiency rate of Black/African American students in each year and the proficiency rate of White students in the same year.

Note: The HSPE mathematics assessments was revised in 2009–10, and the HSPE reading assessment was revised in 2010–11. The definition of the race/ethnicity classifications was revised in 2009–10.

Figure 2.9. HSPE achievement gaps for Hispanic students, by year and subject



Source: High School Proficiency Exam data files provided by CCSD, 2005-06 to 2010-11

Note: Achievement gap shown is the difference between the proficiency rate of Hispanic students in each year and that of White students in the same year.

Note: The HSPE mathematics assessments was revised in 2009–10, and the HSPE reading assessment was revised in 2010–11. The definition of the race/ethnicity classifications was revised in 2009–10.

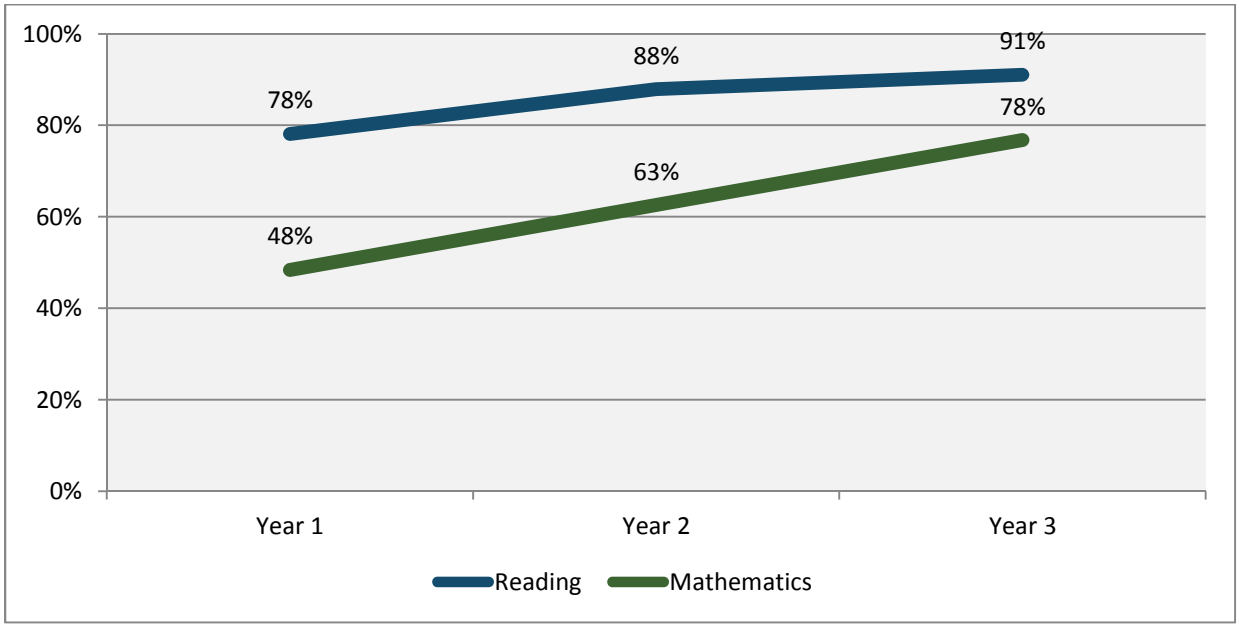
The achievement gaps for high school students designated as eligible for free and reduced-price lunch, LEP, and with an IEP have a similar pattern to those reported above for grade 3–8 students. The gaps are substantial and, although there are fluctuations, they do not appear to be closing in any significant way.

Three-Year Performance

As another way to examine high school reading and mathematics achievement, two cohorts of students who started in grade 10 were followed through grades 11 and 12: Cohort 1 includes students who entered grade 10 in the 2006–07 school year; Cohort 2 includes those who entered grade 10 in the 2007–08 school year. For ease of reporting, the results of the two cohorts have been combined in these findings.

This analysis follows students who did not pass the tests on their first attempt to see how many of them passed on subsequent attempts. As Figure 2.10 illustrates, although the first year passing rates are low, especially in math, the rates do improve for students who persist in taking the test multiple times. By the end of grade 12, 91 percent had passed the reading test and 78 percent had passed the math test.

Figure 2.10. Increase in HSPE proficiency rates over three years



Source: High School Proficiency Exam data files provided by CCSD, 2005-06 to 2010-11

Note: Figure reads: For students in the reading cohorts, 78% passed the reading HSPE after one year, 88% of students passed after two years, and 91% of students passed after three years.

Note: Sample Size = reading 39,321 (Cohort 1: 19,166; Cohort 2: 20,155); mathematics 39,518 (Cohort 1: 19,258; cohort 2: 20,260).

A revealing feature of the cohort analysis is the number of high school students who persist at staying in school and taking the test, even though they are not succeeding. As shown in Table 2.2, there are 2,135 students who were retained in grade 10 who took the math exam again in their second grade 10 year. There are 74 students who were retained a third time in grade 10 and took the exam yet again. It is evident that this group is in need of intensive assistance to help them pass these exams.

Table 2.2. Total number of students who took the mathematics HSPE at least once, by grade level, by eligible year

	Year 1	Year 2	Year 3
Grade 10	39,518	2,135	74
Grade 11		13,394	432
Grade 12			8,527
Total	39,518	15,529	9,033

Note: Table reads: Across both cohorts, 39,518 students took the mathematics HSPE exam the first year they were in grade 10. Of this group of students, 13,394 took the HSPE at least once the following year in grade 11, as did 2,135 students who were held back.

Note: Students who took the mathematics HSPE in their third eligible year did not necessarily take the exam in their second eligible year.

Note: Sample size = 39,518 (overall); Cohort 1: 19,258; Cohort 2: 20,260

Grades K–12 English Fluency Performance

In CCSD, LEP students are given the *Language Assessment Survey* (LAS Links) and the *English Language Proficiency Assessment* (ELPA), depending on their grade level and when they entered the district. Based on these scores, the district assigns one of four English proficiency status (EPS) codes to indicate students' level of English fluency.

In 2010–11, 31 percent of CCSD students currently in the district had qualified for LEP services at one point in time. Of these:

- 30 percent were considered fluent English speakers and had exited LEP services.
- 16 percent were considered fluent English speakers but were still on monitor status[10].
- 47 percent were considered limited English speakers.
- 6 percent were considered non-English speakers.

To provide a sense of how long students are in need of services, Figure 2.11 displays the English fluency rates of nine cohorts of LEP students from prior to 2002–03 through 2010–11. If one reads the figure from right to left, a dramatic picture emerges.

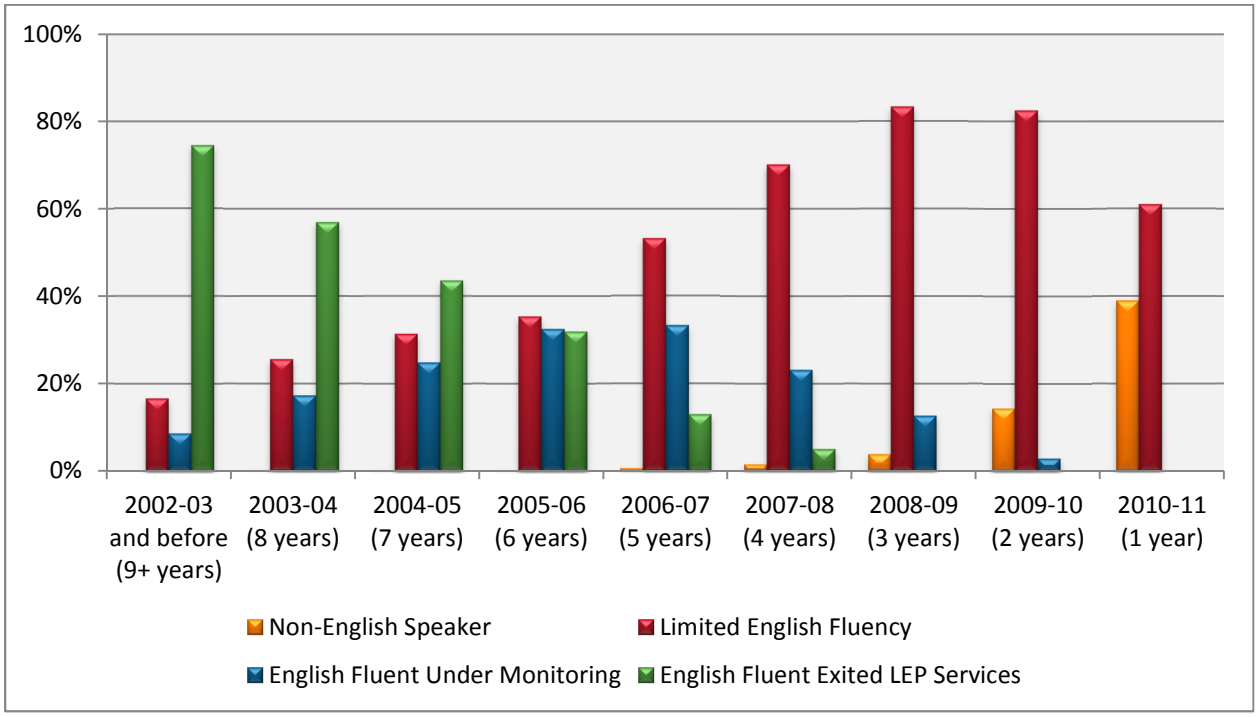
Students who had just entered in 2010–11 were all either non- or limited English speakers. For those who had been in the district two years (2009–10 cohort), a few had attained fluency but the vast

[10] In 2009–10 it was determined that all LEP students in CCSD must be monitored for two years after meeting language proficiency to ensure academic success. Previously, students were exited immediately upon meeting language proficiency. This change may have affected the results of the LEP cohort analysis.

majority have not. A few more students became fluent in the third year, but notable improvement was not seen until students had been in the district for four years (the cohort that entered in 2007–08). By the seventh year, the majority had exited LEP services and the fluency rates continued to rise in the subsequent years.

In effect, there is slow progress in the attainment of English fluency by LEP students and this affects these students' academic achievement in core subject areas. The next section reports that generally LEP students in peer districts make much more rapid progress in attaining English fluency.

Figure 2.11. LEP student English fluency rates, by the school year in which student cohorts entered the district, as of June 2011



Source: 2010-11 English proficiency results based on English Proficiency Status (EPS) data provided by CCSD

Note: Sample size (overall) = 97,354.

Note: Sample size (by year) = 23,440 (2002–03 and before); 6,250 (2003–04); 7,778 (2004–05); 10,522 (2005–06); 10,629 (2006–07); 9,152 (2007–08); 9,319 (2008–09); 9,669 (2009–10); 10,595 (2010–11).

Given that Hispanic students comprised 42 percent of CCSD students in 2010–11, a review of their performance is warranted. Of the LEP students that had been in the district for four years, Hispanic LEP students had noticeably lower English fluency levels than other racial/ethnic LEP groups.

For LEP students in the 2007–08 cohort, the proportion that had exited services or were considered fluent English speakers was:

- 25 percent for Hispanic LEP students

- 52 percent for Asian/Pacific Islander LEP students
- 45 percent for White LEP students
- 37 percent Black/African American LEP students.

Continued focus on the Hispanic LEP population is necessary to find successful strategies to increase their English fluency levels more quickly.

Comparison of CCSD with Three Peer Districts

As part of the Educational and Operational Efficiency Assessment, CCSD requested a comparison of its student academic performance with that of similar districts. This comparative analysis was guided by two primary questions:

1. How does CCSD student performance compare with that of its peer districts?
2. What do the peer districts believe are the contributing factors to their higher performance in certain areas, and how could CCSD benefit from this information?

Selection Process

A multi-stage approach was used to select three districts similar to CCSD in demographic composition and spending, but with higher student achievement in certain areas than CCSD. Three districts were selected based on having similar demographic characteristics, such as district locale (city/suburban), size, percentage of students with free or reduced-price lunch eligibility, percentage of limited English proficient students, and percentage of students receiving special education services. Teacher-pupil ratio, percentage of Title I schools, and total per-pupil revenue and expenditure also were examined. In addition to looking at the demographic composition of comparison districts, the team examined academic performance.

Two of selected peer districts were in Florida and the third was in Texas. Broward County, FL Public Schools (BCPS) was chosen primarily because it had the highest graduation rate and lowest dropout rate of the comparison districts. Houston Independent School District (HISD) had the best performance for students in elementary grades in the areas of both reading and mathematics. Although Palm Beach County, FL Public Schools was originally selected as the third district, CCSD district leadership instead chose Miami-Dade County Public Schools (M-DCPS) in order to have one comparison district of larger size than CCSD. In addition to analyzing their student performance data, officials in the peer districts were interviewed to identify factors that contributed to their success.

Tables 2.3 and 2.4 include the demographic, financial, and student performance data used to select the peer districts.

Table 2.3. Demographic and financial information for comparison districts (2009–10)

District Information	CCSD	BCPS	HISD	M-DCPS
State	Nevada	Florida	Texas	Florida
Locale type	Suburb, Large	Suburb, Large	City, Large	Suburb, Large
Number of schools	370	325	309	546
Number of students	307,059	256,137	202,773	345,804
Percent FRPL eligible students	43.8%	52.8%	59.3%	68.0%
Percent LEP students	16.8%	9.5%	28.5%	17.2%
Percent SPED students	10.5%	12.3%	8.1%	11.0%
Teacher-to-pupil ratio	19.95	16.92	16.9	15.98
Percent Title I schools	53.5%	61.2%	88.0%	67.2%
Total per-pupil revenue (2008–09)	$11,859	$11,569	$9,867	$13,282
Total per-pupil expenditure (2008–09)	$6,877	$7,838	$7,485	$8,826

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD)

To consider how CCSD student performance compares with that of its peer districts, the most recently available data were compiled for BCPS, HISD, and M-DCPS from the Common Core of Data and district or state websites (See Table 2.4). When data were unavailable from these sources, the peer districts were asked to share any additional information that might help this analysis.

Table 2.4. Student performance information for comparison districts (2009–10)

Student Performance Indicator	CCSD	BCPS	HISD	M-DCPS
District AYP status	Met[11]	Not met	Not met	Not met
% proficient, all grades, reading	66.2%	63%	84%	59%
% proficient, all grades, math	63.5%	72%	81%	66%
% proficient, Grade 3, reading	59.8%	72%	89%	68%
% proficient, Grade 3, math	65.3%	80%	83%	78%
% proficient, Grade 4, reading	64.1%	72%	81%	70%
% proficient, Grade 4, math	65.6%	76%	87%	72%
% proficient, Grade 5, reading	52.3%	70%	89%	66%
% proficient, Grade 5, math	65.6%	68%	92%	60%
% proficient, Grade 6, reading	62.7%	69%	81%	62%

[11] For the 2009–10 school year CCSD made AYP, but for the 2010–11 school year the district failed to make AYP and has been designated as a "watch" district.

Student Performance Indicator	CCSD	BCPS	HISD	M-DCPS
% proficient, Grade 6, math	61.1%	64%	79%	53%
% proficient, Grade 7, reading	72.9%	68%	82%	64%
% proficient, Grade 7, math	63.7%	65%	78%	59%
% proficient, Grade 8, reading	64.9%	60%	91%	51%
% proficient, Grade 8, math	55.4%	72%	83%	63%
% proficient, Grade 9, reading	—	48%	88%	42%
% proficient, Grade 9, math	—	72%	64%	63%
% proficient, Grade 10, reading	77.6%	39%	87% (ELA)	37%
% proficient, Grade 10, math	49.6%	73%	68%	73%
% proficient, Grade 11, reading	93.5%	—	90% (ELA)	—
% proficient, Grade 11, math	70.6%	—	87%	—
NAEP score, Grade 4, reading [a]	211 (NV)	—	211	221
NAEP score, Grade 4, math [a]	235 (NV)	—	236	236
NAEP score, Grade 8, reading [a]	254 (NV)	—	252	261
NAEP score, Grade 8, math [a]	274 (NV)	—	277	273
Mean PSAT total score	110.8	121.5	118.0	—
PSAT participation rate	81.6%	81%	88%	82%
Mean SAT total score	1423	1456	1388	1426
SAT participation rate	30.6%	51%	54%	48%
Mean ACT total score	21.1	18.6	18.8	17.5
ACT participation rate	20.6%	57%	27%	54%
% AP exams scored 3–5	45.1%	45%	38%	39%
AP exam participation rate [b]	11.3%	29%	24%	29%
Four-year graduation rate	68.1%	78%	74%	72%
Single-year dropout rate (Grades 9–12)	4.8%	1.6%	3.7%	4.0%

Sources: See the *Comparative Analysis of Academic Performance* report for references to all data sources

[a] National Assessment of Educational Progress (NAEP) scores for the full state of Nevada are used as a proxy for CCSD; Houston ISD and Miami-Dade County are part of the NAEP Trial Urban District Assessment. NAEP scores available for 2008–09.

[b] AP exam participation rates are used as a proxy for AP course enrollment.

Student Performance Trends

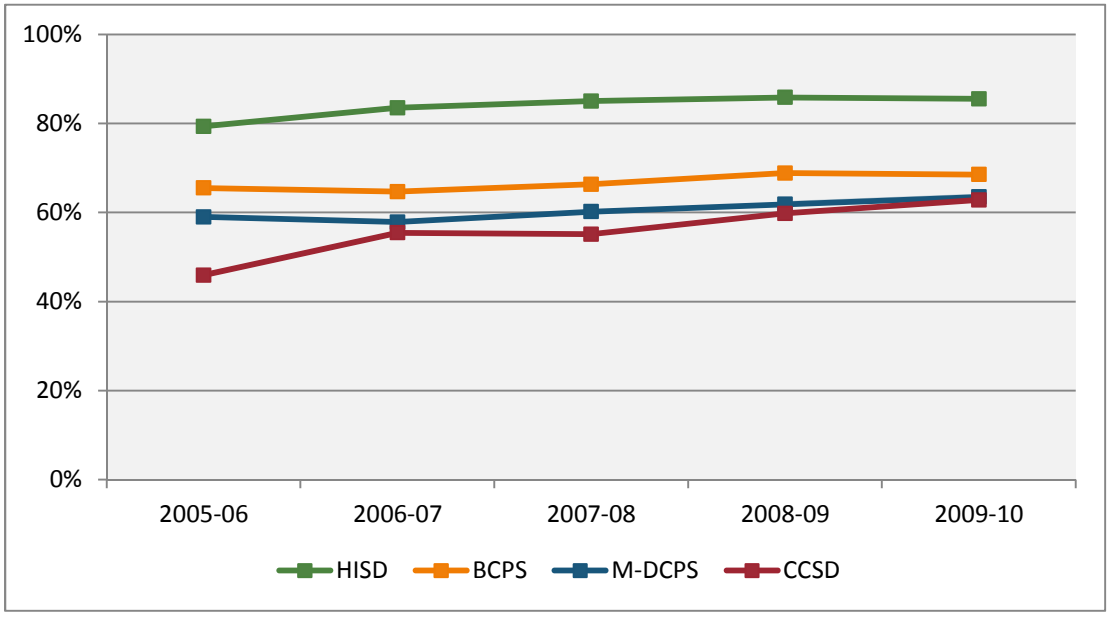
Once the comparison districts were selected, an analysis was conducted on how their students performed over time. Trend findings are presented for reading and math proficiency, English fluency

attainment, and graduation and dropout rates. Additional findings are available in the full report, *Comparative Analysis of Academic Performance.*

Reading and Math Proficiency Trends

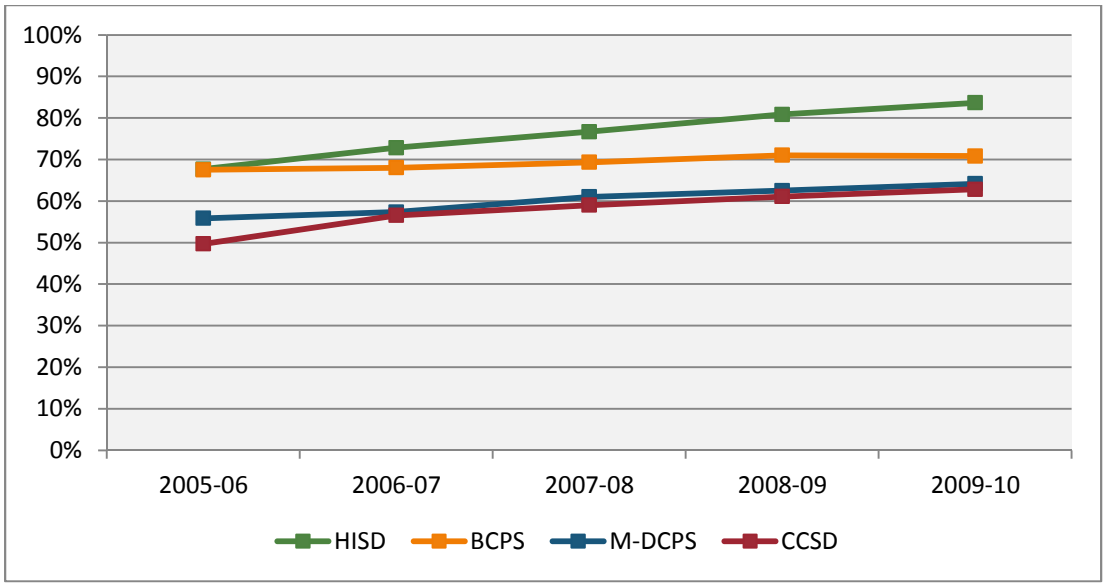
To examine the reading and math trends, the most recently available data were compiled for CCSD, BCPS, HISD, and M-DCPS using the proficiency rates for students in grades 3–8 on their state exams. Figures 2.12 and 2.13 show the reading and math proficiency rates for each of the districts over time.

Figure 2.12. Reading proficiency rates for comparison districts over time (grades 3–8)



Sources: CCSD data from http://www.nevadareportcard.com; BCPS and M-DCPS data from http://fcat.fldoe.org/fcinfopg.asp; HISD data from http://www.tea.state.tx.us/student.assessment.

Figure 2.13. Math proficiency rates for comparison districts over time (grades 3–8)



Sources: CCSD data from http://www.nevadareportcard.com; BCPS and M-DCPS data from http://fcat.fldoe.org/fcinfopg.asp; HISD data from http://www.tea.state.tx.us/student.assessment.

From 2005–06 to 2009–10, the reading proficiency rates in all districts increased slightly, with HISD demonstrating the highest reading proficiency rate (86 percent) compared to CCSD (63 percent) in 2009–10. Of note, CCSD had the largest improvement in reading proficiency rates, with an increase of 17 percentage points from 2005–06 to 2009–10.

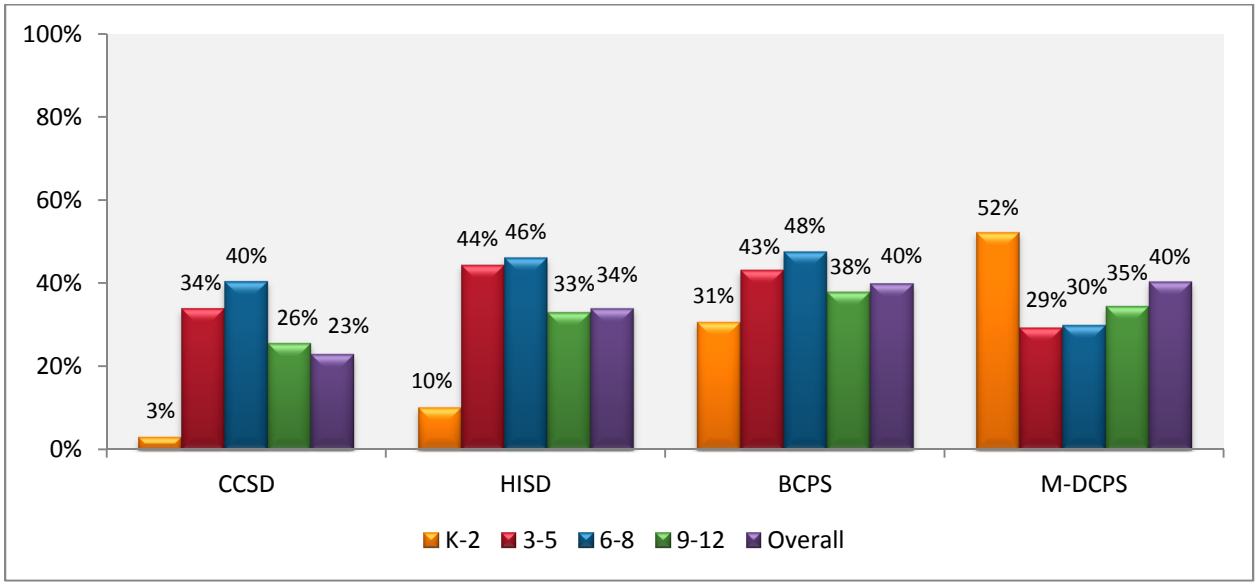
For the math proficiency rates, there was a more noticeable upward trend for all districts, with HISD again demonstrating the highest math proficiency rate (84 percent) compared to CCSD (63 percent) in 2009–10. From 2005–06 to 2009–10, the CCSD math proficiency rates increased approximately 13 percentage points.

This comparison of reading and math proficiency data comes with the caveat that each state sets its own standard for both the difficulty of the items on its state assessment and the number of items that a student must answer correctly to be designated proficient. As a consequence, the proportion of students at or above a proficiency level is not necessarily comparable across states.

English Fluency Trends

In 2009–10, the proportion of students designated as LEP in CCSD was 17 percent and ranged from 10 to 29 percent in the peer districts. Figure 2.14 displays the percent of LEP students who had achieved fluency in English according to the various assessments used in each district. The findings are broken down by grade spans, which reveal different patterns of fluency attainment across the districts.

Figure 2.14. Percentage of LEP students considered English proficient in CCSD and peer districts (2010–11)



Sources: LEP English proficiency results based on data provided by districts for 2010–11

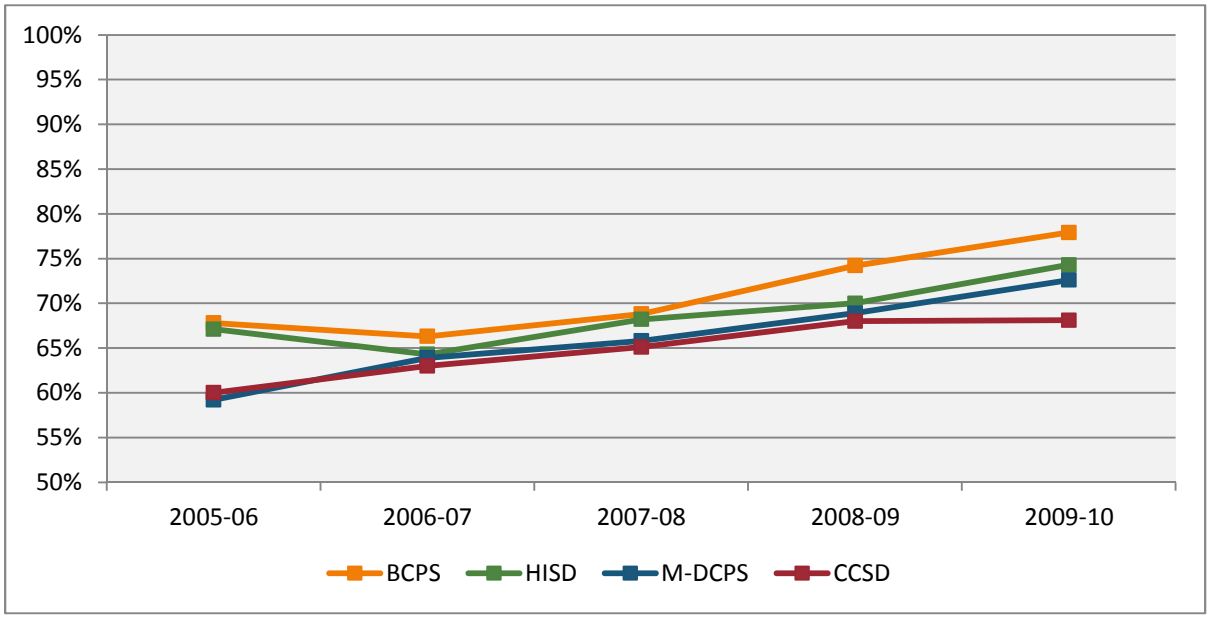
As noted in the findings above, CCSD students in their first years of schooling are not learning English very quickly. This is reinforced by the very small proportion of the K–2 LEP students (3 percent) considered proficient. In contrast, 52 percent of the M-DCPS K–2 LEP students are considered proficient in English.

According to interviews, M-DCPS has a large immigrant population, with more than 60,000 students enrolled in the English for Speakers of Other Languages (ESOL) district programs. As evidence of their success, M-DCPS recently conducted a longitudinal study and found that LEP students who had entered the district in kindergarten were outperforming native English speakers on state tests by the time they reached grade 3. District staff have put great emphasis on helping the youngest LEP students become fluent in English.

Graduation and Dropout Trends

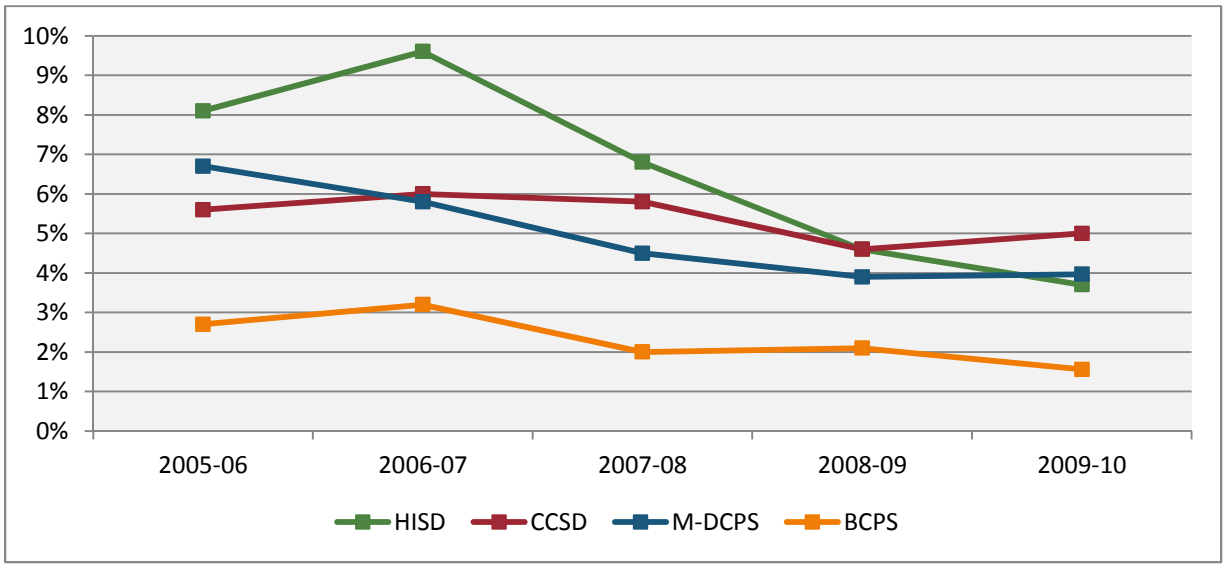
To examine the trends of high school graduation and dropout rates over the past few years, the most recently available data were compiled for CCSD, BCPS, HISD, and M-DCPS. Figure 2.15 shows the four-year graduation rates for each of the districts for the 2005–06 through 2009–10 school years, and Figure 2.16 shows the single year dropout rates for students in grades 9–12 for the same time period.

Figure 2.15. Four-year graduation rates for comparison districts over time



Sources: CCSD data from http://www.nevadareportcard.com; BCPS and M-DCPS data from http://www.fldoe.org/eias/eiaspubs/xls/graddroprate0910.xls; HISD data from http://www.tea.state.tx.us/acctres/dropcomp/years.html.

Figure 2.16. Single year dropout rates for comparison districts over time (grades 9–12)



Sources: CCSD data from http://www.nevadareportcard.com; BCPS and M-DCPS data from http://www.fldoe.org/eias/eiaspubs/xls/graddroprate0910.xls; HISD data from http://www.tea.state.tx.us/acctres/dropcomp/years.html.

Since 2005–06, all districts have shown an increase in four-year graduation rates, with BCPS having the highest graduation rate (78 percent) compared to CCSD (68 percent) in 2009–10. Of note, HISD has shown the sharpest decrease in dropout rates since 2006–07, with a lower dropout rate (3.7 percent) than M-DCPS (4.0 percent) and CCSD (4.8 percent) in 2009–10. BCPS has maintained a consistently low

dropout rate compared to the other districts, reaching their lowest dropout rate most recently in 2009–10 (1.6 percent).

Factors Contributing to Program Success

To determine what the peer districts believe are the contributing factors to their most successful programs, the review team contacted district leadership at Broward County, Houston ISD, and Miami-Dade County to identify available staff members for phone interviews. A total of 19 staff members across the three districts were interviewed during July and August 2011. The highlighted program areas were selected because these districts appear to be succeeding in areas where CCSD is struggling.

CCSD leadership identified the area of LEP students as a concern, so each of the comparison districts was asked about the programs it offers for this population of students. Based on earlier interviews with CCSD staff, the review team learned that CCSD had no district-funded preschool programs. Given that the peer districts had higher grade 3 proficiency rates, each of the districts was asked about the preschool and other early childhood programs offered that they felt successfully prepared students to be "school ready." (Because no standardized data were available for students in grades K–2, the grade 3 proficiency rates in reading and math served as a proxy for the success of early childhood programs in the peer districts.) In addition to questions related to LEP and preschool programs, district staff were asked what overall factors had contributed to their recent successes.

Broward County Public Schools

Across the eight interviews conducted for BCPS, key personnel repeatedly mentioned the following four qualities that they believed have been major contributors to their district's success.

- **Consistency.** BCPS is an aligned district in which teachers and students receive the same educational materials and hear a unified message. One interview respondent noted that for a district its size, consistency was critical for BCPS students and teachers. Another respondent added that the district's cohesive nature helps mitigate the negative effects of teacher and student transience among schools. Consistency in BCPS is maintained through online Web portals, curricular alignment, and three area offices, each of which is led by its own superintendent.

- **District organization.** According to interview respondents, relying on the area offices is a key factor to ensuring that the district runs smoothly. The three area offices are geographically organized: north, south, and central. Each area has its own superintendent, three or four area directors responsible for a different school zone, and support staff (e.g., exceptional student education coordinator, technology specialist, etc.). The area offices are essential to providing oversight and support to the schools and serving as a point of contact for students and parents.

- **Professional development.** BCPS offers regular, continuous professional development and training to teachers during the school year, as well as during the summer. The type of trainings

offered are specific to different program areas and may take place at the school, a district training center, or online. One interview respondent said that leaving quality professional development out of the discussion would mean leaving out "a critical component for success." According to BCPS staff, excellent professional development produced excellent teachers, and this was cited as an important factor in the high teacher quality found in the district.

- **Data collection and usage.** Each school in BCPS collects academic and behavioral data on all of its students. Using these data, the district research department generates regular reports for the district and schools. The research department also conducts in-depth analysis by identifying national research that is relevant to the district and then trying to replicate it in BCPS schools. Resources cited as support for different programs include the What Works Clearinghouse, the Florida Center for Reading Research, and the Consortium on Chicago School Research.

Houston Independent School District

Across the eight interviews conducted for HISD, key personnel repeatedly mentioned the following three qualities that they believed have been major contributors to their district's success:

- **Aligning services despite decentralization.** HISD is a decentralized district with a strong belief for school autonomy. Although all district staff reported this viewpoint as a challenge to aligning district services, all reported that they are finding ways to monitor student and school progress and provide appropriate professional development. For example, the district has School Improvement Officers (SIOs) who monitor clusters of schools for progress and support, vertically aligned standards for Prekindergarten through grade 12, and state- and district-mandated curricula for LEP students and preschool programs.

- **Data-driven decisions.** To help monitor student performance throughout the district, HISD relies heavily on a centralized student data system. At elementary schools, formative assessments are regularly given throughout the year, which drives the interventions provided to struggling students. At secondary schools, students who do not succeed on the state tests are flagged in the district data system to alert teachers and school staff of areas of concern. Additional assessments can be given to these students to pinpoint what skills need to be targeted for interventions. The HISD data system is available to all staff throughout the district, which staff report has been useful given the district's high student mobility rates.

- **Support and professional development focused on improvement.** The district's 22 SIOs are responsible for a cluster of schools at the elementary, middle school, or high school level. Each SIO is supported by specialists in key areas such as LEP, numeracy, and literacy. The SIO and specialists are responsible for identifying areas in need of improvement based on data, aligning the curriculum, aligning academic systems with special education, providing support and professional development, and getting schools back on track.

Miami-Dade County Public Schools

Based on the three interviews conducted for M-DCPS and other research, the following four qualities were identified as major contributors to the district's success:

- **Consistency.** It is important to M-DCPS to have a consistent curriculum throughout the whole district. The same reading and math programs are offered at all schools, and LEP students are also taught using the same curriculum as the general population, with select supplemental materials. Pacing guides and other curriculum materials are provided to all teachers to ensure that students receive consistent instruction, no matter what school they are attending. In interviews, district staff emphasized that they had a highly mobile student population, and that a single curriculum minimized the difficulties students may have transitioning between buildings. M-DCPS also ensures consistency through weekly briefings from the various offices within the district department of education to the school principals and staff.

- **Network structure.** Unlike most districts, M-DCPS services about 40 different municipalities, each of which has its own needs and goals. According to interviews, collaboration between the municipalities and the various community organizations within them is critical for the success of education in the district. M-DCPS has reached out to the mayors for support and formed compacts with many of them. The district also established the Office of Intergovernmental and Community Participation to serve as a liaison among the main district and the network of schools and municipalities. This office facilitates communication and collaboration among the various stakeholders. One benefit of strong community ties has been offsetting district budget cuts. For some programs, community organizations have been able to supplement district funds.

- **Data-driven decisions.** Student data from state tests, formative assessments, and interim assessments drive the district's decisions about the student support services needed as well as where more teacher support is needed. Based on student assessment data, struggling students are provided with targeted interventions to address their specific areas of deficiency. It is also through these data that district staff are able to monitor programs and identify areas of concern where the district may need to step in to get a school back on track.

- **Teacher support.** To promote excellence in teaching, the district supports teachers with professional development, instructional coaches, and paying for educators to attain the certificate endorsements that are required by the state. For example, any teachers who have LEP students in their classrooms must be properly certified or endorsed in this area, therefore M-DCPS offers free endorsement courses to all teachers. The district also provides support through visiting classrooms and modeling lessons to ensure that instruction is meeting district and state standards.

Chapter 3 – Academic Programs and Services

Introduction

This chapter provides recommendations to improve the management and efficiency of Clark County School District's (CCSD) academic programs and services.

As discussed in *Chapter 2 – Student Performance Analysis*, there are other large school systems similar to CCSD that achieve higher levels of academic achievement. CCSD has made progress over the past several years, but still remains far below its own targets, particularly with certain student sub-groups, and 44 percent of its schools have the lowest rating for Adequate Yearly Progress based on *No Child Left Behind*.

Some of the challenges facing CCSD are due to size: the district includes over three hundred schools in Clark County, which encompasses over 8,000 square miles. While the district experienced rapid growth for many years and is expected to experience an increase in population again in 2013-14, the last school year saw a nearly flat level of enrollment. Other pressures on the district are financial. To offset a decrease in state funding and property and property tax revenues, the district dipped into its fund balance, changed its organizational structure, increased class sizes, and reduced staffing across all areas in the district.

Despite these challenges, CCSD's new leadership has articulated a vision for its students that includes an education that will prepare them for success in life. In the language of CCSD's superintendent, students should be "ready by exit,"[12] educated and able to succeed as post-secondary citizens of their community. Recommendations that should assist the district in achieving its goals are presented in this chapter, and summarized in Table 3.1.

Table 3.1. Summary of recommendations

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
Curriculum and Instruction					
3-1.1. Develop cross-functional teams to better coordinate programs and services.	High	2013-14	$0	No	No
3-1.2 Use outside assistance for curriculum development essential for implementation of Common Core State Standards.	High	2012-13	($1,125,000)	No	No

[12] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
3-1.3 Limit the number of core and supplementary instructional programs.	High	2012-13	$0	No	Yes
Student Assessment					
3-2.1. Reduce the number of assessments and agree on common district wide interim and early diagnostic assessments.	High	2012-13	$0	No	No
3-2.2. Develop and implement short-cycle formative assessments	High	2012-13	$0	No	No
3-2.3. Fully utilize the capabilities of INFORM and require district-wide use.	High	2012-13	$0	No	No
Professional Development					
3-3.1. Coordinate professional development services to improve focus at the school level, reduce duplication of effort, and more effectively integrate funding streams to address district priorities.	High	2012-13	$7,500,000	Yes	No
3-3.2. Adopt practices to increase the effectiveness of professional development in improving teacher skills and practices.	High	2013-14	$0	No	No
Response to Intervention					
3-4.1. Mandate implementation of the district's Response to Instruction (Response to Intervention; RTI) system in all schools.	High	2012-13	$0	No	No
School Operations					
3-5.1. Convert low enrollment Advanced Placement courses to CCSD's virtual learning model.	Med	2012-13	$14,640,000	No	No
3-5.2. Eliminate both the theme coordinator and recruiting counselor positions at the district's magnet schools.	Low	2012-13	$9,032,345	No	No

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
3-5.3. Evaluate CCSD's behavior and continuation schools, the referral and exit procedures, and the impact on student performance and other outcomes.	Med	2012-13	$0	No	No
Evaluation of Academic Programs					
3-6.1. Enhance program evaluation capacity to support calculation of Return on Investment in academic programs and interventions.	High	2012-13	($12,500,000)	Yes	No
Total			**$17,547,345**		

The reminder of this chapter is organized into the following sections:

- Section 1 – Curriculum and Instruction
- Section 2 – Student Assessment
- Section 3 – Teacher Professional Development
- Section 4 – Response to Intervention
- Section 5 – School Operations
- Section 6 – Evaluation of Academic Programs

Section 1 – Curriculum and Instruction

CCSD's curriculum and instruction function resides in the Division of Curriculum and Professional Development (CPD). This division has the responsibility to provide leadership, service, and support for the implementation of the state's academic standards and to ensure that all learners achieve at high levels. A district's curriculum and instructional programs serve as a foundation for the academic success of any district. Curriculum is both the process and content by which learners gain knowledge and understanding. Instruction is the creation and implementation of plans for teaching curriculum content. Therefore, the two must be compatible in order to maximize student learning.

The district has set an ambitious goal to have all students reading at or above grade level at three specific points along the academic continuum, grades 1, 3, and 5. The Superintendent describes literacy as the linchpin for the district's academic improvement efforts and has charged the Deputy Superintendent of Instruction with establishing a new literacy plan for the district.[13] The Deputy Superintendent of Instruction has established a leadership team that has been working to develop a plan that will revise how the district addresses literacy.

Impact of Common Core State Standards

Along with 43 other states, Nevada has adopted the national Common Core State Standards adopted by the National Governors Association and the Council of Chief State School Officers. The state is also participating in a multi-state consortium called SMARTER Balanced Assessment Consortium which is working to develop assessments that are aligned to the Common Core State Standards and intended to accurately measure student progress toward college and career readiness.

As a result of these state-level initiatives, CCSD is in the process of transitioning existing curriculum documents in reading/ELA and mathematics to prepare for related new statewide assessments that will come online during the 2014-15 school year. The district has developed a rollout plan that involves implementation of new curriculum in reading and mathematics for elementary and middle schools during 2011-12 and high schools during 2012-13. The district has also been participating in the activities supported by the Nevada Department of Education to identify gaps in existing state standards and the Common Core State Standards and subsequently revising curriculum and assessments at the district level.

Teachers and administrators have been participating in professional development to understand the new standards and to review the revisions in the district's curriculum. This significant level of change could be particularly stressful for the elementary and middle schools, given the short implementation time frame. High schools have an additional year to transition from existing course syllabi to courses aligned to the Common Core State Standards. The district must complete the shift to new standards and the revised curriculum work in a timely manner due to the significant changes between the current state

[13] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

assessments and the new common.

The curriculum development process is currently internally driven and relies on compensating teachers for analyzing and revising curriculum documents. While this approach appears to be working for the elementary and middle school reading/ELA and mathematics standards, CPD senior staff have expressed concerns regarding the amount of work to be completed for the high schools as the district uses a course syllabus-based system for curriculum at the high school level. CPD staff stated that a large number of high school courses will need to be redeveloped, reviewed or retired, in order to meet the Common Core State Standards.

District Curriculum

Until recently, curriculum materials, beyond pacing guides at the elementary level and course syllabi at the secondary level, were not widely used at the school level. The elementary literacy curricula and materials were available in 3-ring binders and secondary curricula and materials were in the form of course syllabi. A staff member in CPD has created the Curriculum Engine, a web-based curriculum management system to house the district's curriculum documents that are under revision to align with the Common Core State Standards. District administrators and principals are enthusiastic about the potential of Curriculum Engine and believe it will promote access to and use of curriculum documents at the school site. Principals interviewed during this study shared great enthusiasm for the quality of the curriculum and support materials that are being added to Curriculum Engine. They feature "unwrapped standards" and a level of specificity not provided in previous curriculum documents.

CCSD's instructional programs and support services are important elements of converting curriculum to student learning. Based on in-district interviews and analysis of district documents, several findings emerged related to instructional programs and related services:

- **Lack of collaboration/coordination** – The district's approach to academic programs (and professional development, which is discussed later in this chapter) has been fragmented and has lacked cohesion. Organizational "silos" based on program areas, which are often determined by funding source, are a factor in this lack of cohesion. This creates problems at the school level when schools are either left with too few resources or are required to implement programs mandated by the CPD that conflict with other programs. On the other hand, the district recently instituted a promising program called the School Collaborative. In this program a school is selected to present their challenges to a cross-functional team of representatives from all of the areas across the district that supports instruction. The principal presents the issue and the team problem-solves and collaboratively offers resources to address the problem at hand. This practice, though in its infancy (60 schools during 2010-11), shows great promise as a way to break down barriers and better coordinate services across schools.

- **Multiple educational programs** –The district has an excessive number of educational programs – resulting largely from decentralized and uncoordinated decisions that may or may not be contributing to improved student achievement. Some purchases are duplicated, some programs

are purchased and not used, and some programs overlap resulting in higher costs to the district. Many additional programs selected and purchased by the schools are not centrally tracked. The district's supplemental reading programs used in the schools provide an example of the duplicative programming. Table 3-1.1 lists some of the programs used in the district to support literacy.

Table 3-1.1 – Examples of district instructional reading programs – literacy support

Program and Grade Levels	Elementary School	Middle School	High School
Tier I Core Programs (Adopted Textbooks)			
Harcourt Trophies	•		
McMillan McGraw-Hill	•		
Scott Foresman	•		
Tier I Supplemental Programs			
Compass Learning	•	•	•
Classworks	•	•	
Earobics Step 1-2	•		
Study Island	•	•	
Fast ForWord	•	•	
Achieve 3000	•	•	
Tier II Intervention			
Burst	•		
Fast ForWord	•	•	
Harcourt Trophies Intervention	•		
Read 180 Enterprise Ed.	•	•	•
Time Warp Plus	•		
Voyager Passport	•		
Language		•	•
Corrective Reading		•	•
Voyager Journeys		•	•
Tier III Intensive Intervention			
Fast ForWord	•	•	
Language!	•	•	•
Voyager Passport	•		
Voyager Journeys		•	•
Read 180 Enterprise Edition		•	•
Corrective Reading		•	•
System 44		•	•

Source: *Response to Instruction. A K-12 Multi-Tiered System of Support. A General Education Initiative.*, CCSD

Schools use their Title 1 funds to purchase instructional programs and as long as these programs are deemed "scientifically evidence based" there are no restrictions on purchasing. Additionally, the district's Title 1 program, as well as the English Language Learner (ELL) and Special Education

programs, purchases instructional programs for the schools, often without collaboration with CPD. All of this serves to fragment the district's instructional improvement initiatives and create challenges for students as they move from school to school and for the CCSD staff in the system trying to deliver professional development aligned to the district's instructional programs.

- **Fragmented approach to school support and coaching** – Multiple funding streams are funding instructional coaches, project facilitators, and school improvement specialists. Literacy specialists "purchased" with Title 1 funds are hired by and report to the school administrator. They may or may not be "allowed," based on the principal's decision, to engage in ongoing professional development with the literacy department in CPD, and may or may not be endorsing the same coaching strategies as the district's literacy department. It is important in literacy instruction that a consistent approach, based on scientific research, be used with fidelity throughout the district. Addressing this issue will be instrumental to the success of the district's literacy initiative. The professional development section of this chapter (Section 3) presents a more detailed analysis of this issue.

In general, there is an opportunity to better focus and leverage existing funding sources and personnel to better support the district's efforts to improve student achievement. Administrators consistently expressed a desire to have fewer choices in order to promote a more common focus across the district. With the presence of a new administration, a new district organization (performance zones), and the implementation of the Common Core State Standards, there is an opportunity to better focus and coordinate the district's limited resources toward achievement of its academic improvement goals.

This section provides three recommendations with a number of associated implementation strategies.

Recommendation 3-1.1: Develop cross functional teams to better coordinate programs and services.

A number of organizational barriers are affecting CCSD's ability to collaborate effectively, mostly as a result of units and divisions that have been built around, and are focused on, the requirements of a particular funding source. This organizational insulation requires tremendous energy and effort on the part of staff to overcome as they try to integrate these various services at the school level. An example is the implementation of a Title 1 funded summer school program during 2010-11 that involved the purchase of a Tier II reading program. The literacy department in CPD was not consulted about the appropriateness of the program, and another program was added to the list of the district's instructional programs. In another example, both Title 1 and IDEA purchased reading programs and offered literacy related professional development, in addition to that provided by CPD's literacy department.

Pilot blended funding with the district's literacy initiative.

A cross-functional literacy planning team should look at all of the district resources directed toward literacy and look for opportunities to combine multiple funding streams toward the same goal. The district may want to consider investigating and visiting other districts that have successfully moved in this direction. The district's literacy initiative, under the leadership of the Deputy Superintendent of Instruction, offers an opportunity to integrate and coordinate the use of multiple funding streams (Title

1, IDEA/ Early Intervening Services, ELLP and General Funds) toward the goal of ensuring all students are reading on or above grade level in the target grades outlined in the district's improvement plan.

Reorganize to support the Performance Zone Structure.

Nationally, a number of school districts are reorganizing their central offices into cross-functional teams that support clusters of schools. The most cutting edge efforts include establishing performance measures that hold the team accountable for increases in student achievement in the schools they serve and include this measurement as a component of the individuals' own annual performance evaluation. The new performance zone structure implemented by CCSD provides an opportunity to reallocate a number of central office personnel into teams aligned to the performance zones, reporting to the academic managers.

Coordinate school support through the use of cross-functional teams that report directly to the academic managers.

Rather than tying program specialists to a single school where they may not be fully utilized (or may be assigned other non-specialized duties) the district should consider creating cross functional teams of specialists that serve the various performance zones and report directly to the academic managers. This would allow a performance zone to better coordinate school support, create collaborative professional development events, ensure that support providers speak with a common voice, and increase the efficiency and impact of these personnel. Academic managers could work with CPD and Student Support Services Division (SSSD) to ensure that these program specialists meet the requirements associated with their funding.

Continue to support and expand the School Collaborative initiative.

The School Collaborative Initiative discussed earlier in this section is an example of the type of cross-functional collaboration the district should encourage. The lessons learned from the School Collaborative initiative should be adapted and extended to other schools in the district during the transition to performance zones.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Recommendation 3-1.2: Use outside assistance for curriculum development essential for implementation of Common Core State Standards.

CCSD's access to quality and timely curriculum and curriculum documents is essential to the district's success in improving classroom instruction. CPD staff have a large challenge ahead in revising existing curriculum and developing new curriculum and curriculum support materials to meet the deadlines of the Common Core State Standards. These same personnel are also being pressed to serve as professional developers, representatives on state level planning committees, and curriculum experts. The district should consider utilizing contracted curriculum development experts to perform some of the

curriculum development work so that CPD personnel can focus on the professional development and support necessary at the school level to ensure successful implementation.

Fiscal Impact

Assuming the district contracts with two consultants for each of the content areas of ELA and mathematics for 75 days of service at a rate of $1,500/day the fiscal impact to the district would be $225,000 per year ($1,125,000 over the next five years).

Recommendation 3-1.2	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Use outside assistance for curriculum development essential for implementation of Common Core State Standards	$0	($225,000)	($225,000)	($225,000)	($225,000)	($225,000)
Total	**$0**	**($225,000)**	**($225,000)**	**($225,000)**	**($225,000)**	**($225,000)**

Recommendation 3-1.3: Limit the number of core and supplementary instructional programs.

If CCSD is to improve the academic achievement of the students it serves, processes need to be put in place and decisions need to be made to limit the number of core reading and mathematics programs as well as the supplemental programs used across the district. The current proliferation of programs has not had a positive impact on CCSD's academic achievement. Many CCSD professionals interviewed for this study feel that an excessive number of programs has, in fact, contributed to the district's lack of progress, and are supportive of greater focus and fewer choices.

The district should have no more than two or three core reading and math programs available to schools and a process should be implemented to control when and how supplemental programs can be added. Principals would continue to have the flexibility to select (from a list of options) which one would work best for their schools. The Assistant Superintendent of CPD should monitor which programs have been selected by which schools, and periodically evaluate each program's impact on student achievement.

Fiscal Impact

The fiscal impact of this recommendation should be negligible. Eliminating some programs will reduce costs, but increasing use of programs the district keeps will increase licensing costs. The district should attempt to achieve a cost neutral solution, and could experience modest, volume-related net reductions in the future.

Section 2 – Student Assessment

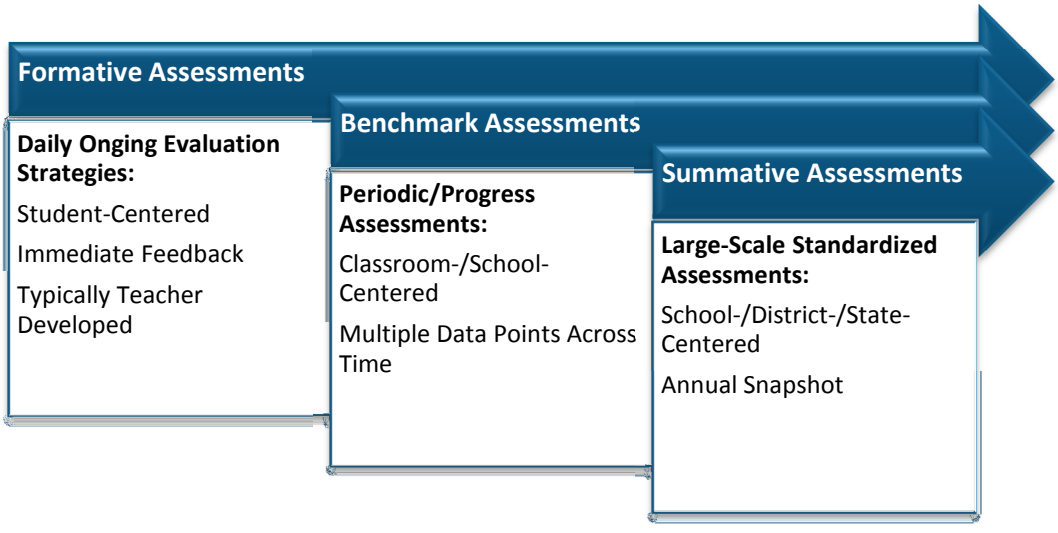
A school district's student assessment system is an important tool for improving student learning. An effective assessment system provides information that can be used to improve instruction, monitor student performance, report results to parents and stakeholders, and inform the district of its progress toward the goal of ensuring all students are ready by exit. Assessments can also serve as early warning systems, providing teachers and school administrators with real-time information that can be acted on immediately.

Effective assessment systems include thee major components to assess student learning:

1. **Formative Assessments** – Used to provide ongoing feedback to teachers and students throughout the instructional process. Formative assessments provide ongoing feedback about the teaching and learning process and help teachers improve learning while there is still time to act.
2. **Benchmark or Interim Assessments** – Used to determine how well students are progressing through the district's curriculum. The use of benchmark assessments allows the district to assess how well additional supports or services are working before too much time passes.
3. **Summative Assessments** – Used to determine how students in schools and the district as a whole are progressing. Summative assessments also inform curriculum and instruction and determine the designation of each school and the district in the state accountability system.

Figure 3-2.1 provides a summary of the purpose and focus of each of these three types of assessments.

Figure 3-2.1. Purpose and focus of district assessments



Source: Wisconsin Department of Education, 2009

A comprehensive and well-functioning student assessment system is crucial to accomplishing the Superintendent's vision for CCSD. The Superintendent describes his vision for a performance management system with the following key pathway checkpoints:[14]

- Grade 12: Graduation of Students with no need for remediation
- Grade 11: AP Participation and Performance, ACT and SAT Performance
- Grade 9: On track to graduation plan
- Grade 8: Algebra Participation and Performance
- Grade 5: Grade Level/Advanced Reading Performance
- Grade 3: Grade Level/Advanced Reading Performance
- Grade 1: Grade Level/Advanced Reading Performance

CCSD's district-wide assessment information is inadequate to make well-informed decisions relative to how effectively teachers are teaching, programs are working, schools are performing or how prepared students are for end-of-year summative assessments. The April 2011 *Study of Barriers to Improved Student Achievement*[15] describes the CCSD assessment system as an area of particular concern. The study's authors noted that there is confusion at school sites about assessment versus testing, and that teachers lacked an understanding of the intent and use of formative assessments to support student learning. The study also noted that building-level administrators lacked a fundamental understanding of the appropriate use of formative assessments. The report summed up this section by stating "A system void of the use of a systematic, formative assessment cripples the instructional process and robs students and teachers of critical improvement opportunities."

Description of Current Assessment System

A number of conditions have contributed to the current condition of the student assessment system.

- The previous regional and area structure allowed regions/areas to adopt their own assessment practices.
- The ability of schools to purchase assessment tools and programs without a centralized approval process has contributed to a proliferation of such tools and programs across the district.
- Individual programs, including Title 1, Special Education, and the English Language Learners program, also purchase assessment programs. Even when these programs show promise, the fact that they are introduced as optional results in inconsistent implementation across the district.

[14] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

[15] *Study of Barriers to Improved Student Achievement,* Quality Leadership Resources, Inc. (April 2011)

- The review team, through interviews and data review, could find no evidence of a centralized evaluation and approval process for assessments. Nor was there evidence that when assessment programs are purchased, procedures to ensure technology support from Assessment, Accountability, Research, and School Improvement (AARSI) is pre-authorized and scheduled.

CCSD has one common assessment used across the district. This is the district's "benchmark assessment" that is administered three times per year and utilizes an item bank purchased from the Educational Testing Service (ETS). The purpose of these interim benchmark assessments is to inform the school and district as to the extent to which all students are progressing in the district's curriculum and to identify students in need of additional supports or services prior to the end of year state assessments. During the course this study, a number of issues were raised related to this assessment. For example, some teachers and administrators reportedly lack a complete understanding of the assessment, considering it a "test" and assigning a grade.[16] Senior CPD staff members noted that variations in the pacing of instruction across schools have resulted in students being assessed on content that has not been taught.

In addition to the assessments themselves, the district's data warehouse and reporting tools are an integral part of the district's assessment system. During 2009-10 the district used American Recovery and Reinvestment Act (ARRA) funds to purchase INFORM (a data management and reporting system). INFORM should allow users to produce more user friendly reports, provide faster turnaround of assessment results, develop data dashboards, and provide school and teacher level access to assessment information. The system shows great promise, but district personnel need to complete training to understand how best to utilize the capabilities of the system.

Given CCSD's ambitious goals for academic achievement, the district needs to redesign its approach to student assessment. This section contains four recommendations to improve student assessments.

Recommendation 3-2.1: Reduce the number of assessments and agree on common district wide interim and early diagnostic assessments.

Table 3-2.1 illustrates the most commonly used assessments at the elementary level. This is not a comprehensive list.

[16] *Study of Barriers to Improved Student Achievement,* Quality Leadership Resources, Inc. (April 2011)

Table 3-2.1. Examples of elementary assessments for reading and mathematics

Elementary Assessments	
Screening/Benchmark Assessments	▪ AIMSweb (six assessments of reading and mathematics) ▪ DIBELS ▪ Scholastic Reading Inventory ▪ Vital Indicators of Progress
Diagnostic Assessments (to determine skill deficit)	▪ CORE Phonics Survey ▪ Developmental Reading Assessment ▪ Qualitative Spelling Inventory ▪ MClass ▪ Scholastic Phonics Inventory
Progress Monitoring Assessments	▪ AIMSweb (six assessments of reading and mathematics) ▪ DIBELS ▪ Vital Indicators of Progress ▪ STAR Math

Source: *Response to Instruction. A K-12 Multi-Tiered System of Support. A General Education Initiative., CCSD*

Senior staff members in both AARSI and CPD stated that it is not currently possible to know all of the assessments that are in use across the district. The district cannot successfully implement a performance management system with this number of assessments. Given the district's 30+ percent in-district student mobility rate, students are adversely affected when the assessments vary from school to school and teachers do not have the information they need, in a format they are accustomed to working with, that describes a student's learning progress or learning problems. The proliferation of district assessments also fragments the support systems in professional development. Whether the professional development is coming from ARRSI or CPD, it is unrealistic to think that these divisions have the capacity to effectively provide professional development to support the understanding and effective use of this many assessments.

Ensure Consistency and Alignment of Assessments

The district has a cross-functional literacy team working directly under the direction of the Deputy Superintendent of Instruction. This team should be tasked to make recommendations about the most effective literacy assessments, and these assessments should be made mandatory across the district. Input from principals and academic managers should be a part of this decision-making process. The team should consider sharing stories and results from similar districts such as Broward County Public Schools who attribute their success in improving student performance to a number of factors including consistency and alignment of the district's reading and mathematics curriculum and a core intervention structure for all schools. A similar cross functional team should be organized to identify and deploy the most effective mathematics assessments.

District-Wide Benchmark Assessments

The *Study of Barriers to Improved Student Achievement*[17] recommended that the district abandon the current system of benchmark assessments and select a new assessment aligned with district learning expectations. However, the district has a substantial investment in the current system. As part of the move to the Common Core State Standards, Nevada is a member of the SMARTER Balanced Assessment Consortium, a multi-state initiative to develop a student assessment system aligned with the Common Core State Standards. This consortium is developing computer-adaptive interim and summative assessments and a suite of formative tools and resources. Once the district has access to these resources, they should be used to replace the current benchmark assessments.

Fiscal Impact

Reducing the number of assessment products is expected to have a cost neutral fiscal impact, as cost reductions from the elimination of some programs will be offset by increased licensing fees for others.

Recommendation 3-2.2: Develop and implement short-cycle formative assessments.

There is often confusion between the term formative assessments and benchmark or interim assessments. For an assessment to be formative, teachers (and students) need to have the results in sufficient time to adjust, or form, ongoing instruction and learning. While benchmark assessments are useful for looking at district-wide patterns and trends that may enable teachers to make useful longer-term changes in instruction and curriculum, they do not occur frequently enough and are not reported quickly enough to spur timely and beneficial adjustments in teachers' instruction.

Research has shown that the biggest instructional payoffs occur when teachers use “short-cycle” assessments, in which test results are available quickly enough to enable teachers to adjust how they are teaching and students to alter how they are trying to learn. Short-cycle assessments yield results during a class period or in the midst of a multi-week instructional unit. Examples include exit slips, “I can” statements, and checklists, among others.[18] The key is to get the results get back to teachers in time for them to adjust instruction. The proper use of frequent short-cycle assessments can save the “surprise knowledge” that after weeks of study, an exam reveals that many students have not learned the material.

Teachers and administrators will need support in understanding and constructing short-cycle formative assessments. In order to implement short-cycle assessments so that they impact student achievement, teachers must understand what quality assessment questions look like and what constitutes good teaching practices. Teachers also need clear knowledge of what it means to analyze the resulting data – and most importantly how to adjust instruction based on those data.

[17] [17] *Study of Barriers to Improved Student Achievement,* Quality Leadership Resources, Inc. (April 2011)

[18] http://ohiorc.org/adlit/inperspective/issue/2005-03/Article/vignette2.aspx

Fiscal Impact

This recommendation can be accomplished with existing resources.

Recommendation 3-2.3: Fully utilize the capabilities of INFORM and require district-wide use.

The district has made a substantial investment in the INFORM system in order to provide enhanced analysis and reporting of CCSD's student assessment data. The system appears to have extensive capabilities to create reports, provide customized data dashboards, and perform analyses that could support the district's performance management goals. However, many of the features and functions are not being fully utilized by the district because, like many other initiatives, its use is "optional." The Assistant Superintendent for Assessment, Accountability, Research, and School Improvement should work with the Deputy Superintendent of Instruction and the Superintendent of Schools to determine what capabilities of the INFORM system can best support performance management.

The Division of AARSI offered professional development sessions during the summer months to help district educators learn how to use INFORM. District administrators who have started using the system were enthusiastic about its potential. Academic Managers were particularly enthusiastic about INFORM's potential to support their work under the new performance zone structure. The use of INFORM should be required across the district and professional development should continue to be offered with a special emphasis on building the capacity of school administrators to fully utilize the tools and analyses options offered by this system.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Section 3 – Teacher Professional Development

Professional development is the primary vehicle for improving the instructional practice of teachers and school administrators. As such, professional development programs and services should be based on district priorities, information about staff needs, student achievement data, and assessments of instructional practices and programs at each school. The district has multiple professional development providers. However, the current approach to planning and delivering district professional development is fragmented because it is based primarily on individual department and program goals, and is largely driven by funding streams. These funds often come with restrictive or specific goals and activities.

CCSD needs to move away from organizing activities around funding sources and combine funding streams, where possible, to support integrated efforts aimed at school needs and district priorities. Key findings from interviews, focus group sessions, and data analysis resulted in the following findings related to professional development:

- It is difficult to provide program-specific professional development because of the large number and variety of programs in schools.

- There is no district-wide coordination function for the many sources of professional development offered by the district and/or area. School administrators describe the district's professional development efforts as lacking focus and coherence. Professional development for the most part is planned and delivered independently by individual program areas without coordination across programs.

- Given the demands of the daily work of the district, the collaborative planning to coordinate professional development is sporadic at best. The different district-level professional development providers report that at times schools are being presented with conflicting information and philosophies. This was validated by the school administrators interviewed.

- As a result of the lack of an integrated approach to providing professional development in the core areas, teachers sometimes miss instruction in their classrooms to attend professional development courses covering the same information that has been provided in other courses. For example, separate literacy training is provided for special education, for ELL and general education. If the literacy professional development were jointly prepared and presented, at least some of the same content could address the needs of all learners in a more integrated fashion that more closely mirrors the reality of the teacher's classroom. While there are some instances of this level of collaborative work at CCSD, it is the exception rather than the rule.

- School principals report they are unable to access relevant, job-embedded, site-specific professional development that actually improves a teacher's ability to provide quality instruction unless they are a Title 1 school receiving additional funding or a very low-performing school targeted for turnaround.

Recommendation 3-3.1. Coordinate professional development services to improve focus at the school level, reduce duplication of effort, and more effectively integrate funding streams to address district priorities.

Funding Sources for Professional Development

The following CCSD organizational units provide professional development for teachers and site based administrators:

- Curriculum and Professional Development
- Human Resources
- Student Support Services Division
  - Title 1
  - Special Education
- Title 3/English Language Learner Program
- Regional Professional Development Program
- Assessment, Accountability, Research and School Improvement
- Equity/Diversity
- Area Offices

School-based administrators also use school funds to procure their own site-based professional development.

The District's 2011 summer professional development catalog illustrates the need for a coordination function for district sponsored professional development. The catalog indicated a total of 524 training sessions with 8,795 participation slots, offered by 11 areas of the district organization.

The top four district professional development providers in this catalog were:

1. Curriculum and Professional Development Division – 192 sessions
2. Student Support Services Division – 109 sessions
3. Human Resources Division – 66 sessions
4. Regional Professional Development Program – 22 sessions

As an example, educators attempting to locate literacy/ELA related professional development sessions would find nine different departments or programs offering a total of 210 professional development sessions targeting literacy/ELA. Table 3-3.1 provides a duplicative count of summer offerings related to literacy/ELA.

Table 3-3.1. District sponsored summer professional development – Literacy[19]

Division / Department	Number of District Level Summer Sessions
CPD – Literacy	62
CPD – Professional Development Education	4
Human Resources – Leadership Development	10
Human Resources – Teacher Induction & Mentoring	10
Regional Professional Development Program	9
SSSD– English Language Learner Program	3
SSSD– Professional Development Department	2
SSSD- Student Support Services Division	22
SSSD– Title 1	4

Source: CCSD Pathlore

Examples of overlap in summer literacy offerings include:

- Harcourt Trophies offered by both ELL and CPD
- CORE Reading Academies offered by both SSSD and CPD
- Differentiated Instruction offered by SSSD and CPD
- Common Core PD offered by HR Administrative Leadership, CPD, and RPDP

The fragmentation and lack of coordination indicated by the varied sources and types of literacy training likely impacts teachers' skills and students' learning and should be changed. The nine divisions and/or programs do not generate a consistent professional development message as it relates to literacy. Interviews with district and school administrators, including academic managers, indicate that teachers often receive conflicting information and recommendations based upon the division or program providing the professional development. Moreover, the numerous and varied professional development offerings competing for the same audience are creating "forced choice" decisions that may prevent access to important information. Based on interviews with district and school administrators this was acknowledged as an ongoing problem.

The district's Deputy Superintendent of Instruction is leading a team effort to create a comprehensive professional development framework that is multi-tiered and cross-functional. In order to provide a more collaborative and inclusive professional development model, the programs and departments

[19] http://opd.ccsd.net/pathlore.html

mentioned above should co-fund professional development and encourage teams of general education, special education, and ELL teachers and staff to collaborate. This will allow for shared experiences and a team approach to instruction, especially in the critical area of literacy.

In order to implement this recommendation, two strategies are suggested:

1. *Conduct an inventory of professional development resources.*
   The cross-functional team should conduct an inventory and analysis of existing professional development resources. This will serve to create a shared understanding of available resources and the effort required to accomplish the goal of a more cohesive and aligned professional development strategy. The following questions should guide the work of the team:

   - How much is the district spending on professional development overall?
   - What key initiatives are going to be counted as part of the inventory and analysis of professional development spending?
   - Who currently manages or controls the professional development resources?
   - What does current spending buy (stipends, substitutes, travel, registration, tuition, teacher time, expert consulting support, staff, materials)?
   - How are current expenditures funded (federal, state, local, or private sources)?
   - How is professional development delivered (professional development academy, external whole school model, school-based coaching, lead teachers, course-work, mentors, summer institute, etc.)?
   - Who is targeted to receive which professional development program (individuals, teams of subject-area or grade-level teachers, or entire schools)?
   - What is the purpose of the professional development (for individuals-induction, continuing education, remediation, or leadership) (for teams or schools – school restructuring, content support, support for special populations, etc.)?
   - What is the topic of the program (literacy, math, science, etc.)?
   - What strategy or focus does the current professional development programs imply?

   Once the team has this information they can align the professional development resources with district priorities.

2. *Align professional development resources with district priorities and coordinate funding and professional development services through a cross-functional team with senior level leadership.*
   The district's professional development goals should be focused on district priorities for student learning as identified in the school and district learning goals, district/school student data, and

the learning needs of educators in CCSD. The leadership of the cross-functional teams should have authority over professional development funds regardless of the program/funding stream.

Fiscal Impact

This recommendation can be accomplished by reallocating and reprioritizing existing staff and financial resources. However, some special education funding can be used to support certain elements of the professional development program. The CCSD special education budget for fiscal year 2012 includes approximately $4.5 million for Early Intervening Services (EIS). This is approximately 10.3 percent of the district's federal award. If the district were to increase its EIS funding to the allowed 15 percent, which would total approximately $6 million, $1.5 million in additional allowable expenditures for general education students could be supported from special education.

Recommendation 3-3.1	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Coordinate professional development services to improve focus at the school level, reduce duplication of effort, and more effectively integrate funding streams to address district priorities.	$0	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Total	**$0**	**$1,500,000**	**$1,500,000**	**$1,500,000**	**$1,500,000**	**$1,500,000**

Recommendation 3-3.2: Adopt practices to increase the effectiveness of professional development in improving teacher skills and practices.

A recent study published by the National Center for Education Evaluation and Regional Assistance (NCEE) *Middle School Mathematics Professional Development Impact Study: Findings After the Second Year of Implementation*[20] examined the impact of a professional development program on the knowledge and teaching skills of 7th grade mathematics teachers. The study found that two years after implementation, there was no evidence that the professional development resulted in improved teacher knowledge, or improved student achievement.

The study confirms that to improve student achievement, professional development must be intensive enough to significantly increase teachers' knowledge *and* skills. A principle of effective professional development is that it is focused, intensive, and sustained enough to affect what teachers know and can do in their classrooms. While most professional development programs impact teacher knowledge, they rarely impact teacher skill, or pedagogical practice. There are a number of reasons for this, not the least of which is a lack of follow-up training and support. In the referenced study, even though the program

[20] http://ies.ed.gov/ncee/pubs/20114024/index.asp

provided some intermittent coaching to the teachers, it is questionable whether it was intensive enough to ensure teachers' effective and consistent application of their new knowledge. Districts should provide staff development that is sufficiently intensive to effect change.

Another professional development issue is the lack of mandated training for literacy. The K-12 Literacy Services Department offers literacy training for principals, literacy specialists, and teachers. The courses provided include:

- Adolescent Reading Academy
- Adolescent Reading Leader
- Coaching Academy
- Elementary Reading Academy
- Reading Leader Institute
- Writing Academy

The SSSD also offers its own Reading Academy for Special Education Teachers.

None of these core literacy professional development opportunities are mandatory. Neither principals, nor literacy specialists, nor teachers are required to take the literacy courses offered. The literacy specialists, whose ranks were cut during the recent budget reduction process, number approximately 155. Approximately 75 percent of them have taken the five day academy training and 25 percent of them have taken the Coaching Academy course. The district should mandate professional development in the core skills considered essential for student success.

The proposed model supported by the Deputy Superintendent of Instruction will allow professional development to be tailored to the needs and performance of each individual school. For example, a review of one of the draft professional development plans describes levels of intensity, which will provide universal, targeted, or intensive resources and support specifically linked to performance indicators. This will allow the district to customize the professional development based on individual needs of schools. Specific requirements for each school will vary, and those schools who are struggling to achieve a satisfactory level of academic achievement should receive more intensive, frequent, and prescriptive support.

The district's INFORM software, which will allow teachers and others to post and review assessment results, can also be used to support the evaluation of the effectiveness of professional development programs in improving teacher skills and practices.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Section 4 – Response to Intervention

Two statutes, *No Child Left Behind (NCLB)* [68 FR 68698] [21] and the *IDEA 2004* (*IDEA*), [20 U.S.C 1401 (c) (5) (F)][22] have provisions that direct or encourage school districts to educate students with disabilities in general education environments and to limit the number of students who are exempted from state mandated assessments. In the re-authorization of *IDEA*, the federal government affirmed in its *Findings* section that the education of children with disabilities can be made more effective in part by establishing pre-referral interventions. *IDEA* is clear that by using more effective interventions the need to label children as disabled in order to address their learning needs should be reduced.

In its discussion of *NCLB*, the U.S. Department of Education articulated a rationale for including all students in testing: "… Students with disabilities accrue positive benefits when they are included in school accountability systems. Educators realize that these students also count, just like all other students; they understand that they need to make sure that these students learn at high levels, just like other students. When students with disabilities are part of the accountability system, educators' expectations for these students are more likely to increase." [68 FR 68698][23]

Taken together, these statements from the *IDEA* and *NCLB* strongly support the inclusion of students with disabilities into general education classrooms and general education accountability systems. The provision of *NCLB* that requires states to include all student groups in state assessment systems is a requirement that states demonstrate their students' AYP. The AYP requirement of *NCLB* has a specific participation rate and a specific performance rate. The participation rate requires that districts meet a standard participation rate in state mandated tests that address the state mandated goals and objectives. The performance rate sets specific goals for passing rates on grade level tests in each subject area that is currently tested. Because few students are exempted from the participation requirement, the inclusion of students with disabilities into general education environments has become increasingly important.

Specific requirements of *NCLB* state that public schools must test students in math and reading annually in third through eighth grades and once in high school. Each state determines what percentage of students must pass the exams annually, raising the bar over time until 2014, when 100 percent of students must be proficient. States can exclude only a small percentage of special education students. Schools must meet the overall pass rate, but also must ensure that subgroups of students—broken down by race, second language, and income status—meet the target. Schools that do not meet any target face escalating sanctions, from busing students to better schools to dismissal of staff.

[21] http://www2.ed.gov/nclb/landing.jhtml

[22] http://www2.ed.gov/policy/speced/guid/idea/idea2004.html

[23] http://www2.ed.gov/nclb/landing.jhtml

Approximately 40 percent[24] of CCSD schools did not meet their state's annual goals in 2010, according to the U.S. Department of Education.

Implementing Tiered Interventions

The reauthorization of *IDEA* in 2004 also focused attention on Response to Intervention (RTI) as a tool for assessing and working with struggling learners. This interest is a result of major changes made in the law:

> *The law changes how students are identified with specific learning disabilities. Local educational agencies are no longer "… required to take into consideration whether a child has a severe discrepancy between achievement and intellectual ability…(P.L. 108-446, §614(b)(6)(A)). Rather, local educational agencies may use a process that determines how a student responds to research-based interventions.*

Response to Intervention (called Response to Instruction in CCSD) requires that high quality instruction/intervention be matched to student need. Interventions must have proven their effectiveness to produce high rates of student learning and be supported by scientific research. RTI models use assessments that are directly related to instruction and proponents believe that services for struggling students must focus on intervention, not eligibility. RTI models propose a three-tiered process of student intervention:

- **Tier One**: Primary intervention is high quality, research-based whole-group instruction and some small group differentiated instruction combined with general screening processes.
- **Tier Two**: Secondary intervention includes research-based small group or individual instruction in specific areas of weakness.
- **Tier Three**: Tertiary intervention is more intensive instruction and support through individualized planning and programming.

The RTI model typically places the responsibility for Tiers 1 and 2, and some options for Tier 3 in general education. A student who is not responding to tier one intervention should be referred to the intervention team whose responsibility is to assist a referring teacher in developing targeted interventions that should be provided in addition to the quality instruction already received in Tier 1. An effective, productive, positive intervention team dedicated to supporting students and teachers is a universally helpful tool for helping meet the diverse learning and behavior needs of students.

[24] http://online.wsj.com/article/SB10001424052702303661904576454152759335650.html.

Recommendation 3-4.1: Mandate implementation of the district's Response to Instruction (Response to Intervention; RTI) system in all schools.

Implementing the District's Model

Over the past few years, a cross functional team including both special education and general education personnel have worked together to develop the district's RTI process. This group has produced a manual on RTI called *Response to Instruction. A K-12 Multi-Tiered System of Support. A General Education Initiative*. The manual contains a thorough description of the model as well as examples, forms, lists of instructional programs, and other useful information. In addition, the team, under the leadership of the Psychological Services Department and the K-12 Literacy CPD, has produced online forms that school personnel can use to complete the steps required in the RTI process.

Unfortunately, the RTI system developed by this team has not been implemented universally or consistently, and has, therefore, not been as effective as it could be. While definitive data are unavailable, estimates from interviewees are that most elementary schools, some junior high schools, and an unknown number of high school schools have actually implemented the RTI model with fidelity and consistency.

In a previous recommendation provided in this section, the lack of consistency in implementation of supplementary supports and programs was discussed, many of which would be Tier 2 and/or Tier 3 interventions. To further support the lack of consistent RTI implementation, a report examining the pilot project on AIMSweb screening also examined the use of standard treatment protocols by schools, indicating which supplementary supports and programs were used by schools in the AIMSweb pilot project. There was a notable lack of consistency in the interventions used throughout the district. For example, about 10 percent of pilot schools used *Read 180* and 38 percent used *Voyager*. The majority, 55 percent, used other protocols. These data show that the district is not implementing its RTI program consistently and that schools are not committed to the core instructional programs in reading identified by the K-12 Literacy CPD Division.

Using Data for Screening and Progress Monitoring

Screening is the most general and broad type of educational assessment. In screening, data are collected and analyzed and the information is used to predict which students are most likely to experience difficulty. Through systematic screening, RTI teams can intervene early with students who are struggling, either academically or behaviorally. Without the widespread adoption and use of screening, students often fail first and then receive supports and interventions later. The systematic use of screening procedures can prevent failure by identifying struggling students earlier. Screening procedures should be in place at each level of an RTI process, so that students' responses to universal, small group, and individual interventions can be evaluated. The design of instruction should be flexible, fluid, and responsive to students' needs at each step along the educational path they follow. The screening process inherent in RTI should be focused on repeated, consistent progress monitoring to provide the information that is the basis for good instructional decisions.

In addition to screening, ongoing progress monitoring, especially through the use of formative assessments, will reveal what each student needs within the core program, which in turn helps inform a differentiated curriculum. Well written common formative assessments reviewed by educators in a timely manner for the purpose of informing and changing instruction are powerful instructional tools. If teachers have a data monitoring process that allows them to review data for individual and groups of students during weekly or bi/weekly instructional planning, they can also review of trends by skill or subject. Reviewing student data should not be a static process done once or twice per year, but a practice that is embedded into all instructional planning. RTI models that use assessments that are directly related to instruction focus more on intervention and less on students' eligibility for special programs.

Monitoring and evaluation tools used by educators are growing increasingly more sophisticated, both in terms of content and in the information systems designed to make their use more practical and effective. As students progress through all tiers of the RTI system, large group, small group, and individual student progress monitoring are all appropriate, but it is individual progress that will allow for individualized approaches to instruction. School-based instructional teams must do the work necessary to help each student succeed in school by measuring progress at each tier of intervention.

The district has purchased and begun the use of AIMSweb software for its core screening process. The psychological services department in SSSD has taken the lead in the AIMSweb pilot project, intended to increase the number of schools and individual users. The department has produced a report on the project, which shows a steady increase in the number of AIMSweb licenses, from approximately 22,000 in 2008-09 to an anticipated 97,000 for the 2010-11 school year. According to interviews with several directors in at least three divisions, the use of AIMSweb for screening has not been mandated by the district leadership. Consequently, many schools have attended training on how to use AIMSweb and some use it regularly, but other schools use other measures or do not systematically screen students to identify those who are struggling either academically, behaviorally, or both. The staff development calendar for summer 2011 indicates that training on AIMSweb is being offered by the SSSD. In addition, the AARSI Division offered AIMSweb training on approximately 300 schools during the 2010-11 school year.

Linking RTI to Effective Instruction

The RTI process should be considered part of the district's overall approach to high quality, effective instruction. If a sound instructional framework is in place, then the RTI process should extend it through early identification and intervention. RTI should not add to a school's instructional responsibilities, it should enhance them by providing the vehicle for determining whether the core instruction and behavioral supports are working for individual students and, if they are not, helping the school design and implement more effective interventions. The RTI team, along with the principal, should become the instructional leaders on the school and should support teachers and students. When the RTI model is in place on all schools and functioning as intended, students can be targeted for early, effective intervention *before* they are struggling, failing, or dropping out.

Because the district's RTI team has already done a great deal of work developing its RTI model, the steps for implementation relate primarily to the expansion and effectiveness of the model. The district should:

1. Mandate implementation of the RTI process at all schools.
2. Require monthly reports from schools related to their implementation of the RTI process, including number of students considered by teams, number of students at each tier of intervention, use of AIMSweb screening by teachers, and the progress in implementing core and supplementary math and literacy curricula and programs at each school.
3. Examine data to evaluate academic progress at each school and determine if a relationship exists between each school's RTI progress and its achievement. Differentiate additional support based on this data examination.
4. Continue to provide professional development on screening, progress monitoring, core instruction, and supplementary supports and programs. CCSD should also provide professional development on the RTI process for schools whose implementation is incomplete or ineffective.

Fiscal Impact

While additional effort of CCSD will need to be devoted or reallocated to implement this recommendation, there should be no additional costs of implementing the RTI system throughout the district. All of the development work for the RTI model has been completed, the referral and tracking forms have been developed and are available online, the screening software (AIMSweb) has been purchased and training is being provided, and the curricula and materials for each tier are included in the district's curriculum selection and adoption process. While there are no immediate cost reductions related to the implementation for RTI, it is possible that over time there will be fewer referrals to and placements into special education.

Section 5 – School Operations

Elementary and secondary education is a labor-intensive undertaking – personnel costs typically consume approximately 80 percent (or more) of the average school district budget. Most district employees are housed in schools, as school administrators, teachers, and support staff. Consequently, effective school districts place a major emphasis on effective human resources management in schools. To be effective districts must consider such questions as:

- How do teacher workloads vary from school to school within the district based on grade level, subject, and school scheduling? Is the variation in teacher workload acceptable and in students' best interests?
- How are typically low enrollment subject areas staffed?
- How is technology deployed to extend the reach of the existing teacher workforce?
- How are non-teaching positions allocated in schools? Are they allocated in students' best interests?

As CCSD has grown rapidly over the past decade, few staff resources have been devoted to analyzing school operations with an eye to staffing efficiency and effectiveness. Rather, most school operations management has been focused on the filling of the many new positions necessitated by the annual opening of many new schools.

Two areas of school operations which merit attention are low student enrollments in many Advanced Placement (AP) classes, and the staffing levels of non-teaching positions in CCSD's magnet schools.

Low Enrollment Advanced Placement Courses

A review of the actual course enrollments for 2010-11 for all CCSD high schools reveals a number of areas in which class sizes are less than 20. Some high schools offer multi-year sequences of study with very low enrollments in the third and fourth year classes. To address this issue, some high schools make an effort to continue to offer course breadth by having the same teacher teach several low enrollment courses during the same period. For example, one art teacher taught Painting I (9 students), AP Studio Art: 2-D (6 students), and AP Studio Art: 3-D (1 student) in the same period, for a total "class" enrollment of 16.

Cutting costs by reducing the number of low enrollment high school courses can be controversial if stakeholders perceive that the course offerings are being reduced. However, one area in which CCSD can reduce the number of low enrollment courses without affecting either the breadth or depth of academic offerings is AP courses.

Recommendation 3-5.1: Convert low enrollment Advanced Placement courses to CCSD's virtual learning model.

Table 3-5.1 provides the enrollments for 12 different AP classes in CCSD high schools. The district provided this advanced content to 14,835 students in a traditional face-to-face classroom. However, in many cases, the classes had low enrollments, including a Spanish Language class of two students (Canyon Springs High School), a Chemistry class of 10 (Desert Oasis High School), and a Statistics class of seven (Western High School). The figures highlighted in red were classes provided to less than 25 students in one section. The figures highlighted in yellow were classes where a number of sections were offered so that the average class size was less than 25 students. Considering both the red and yellow highlights, the district offered 233 sections of AP courses in classes of less than 25 students. This provided just over 4,100 students a very small class environment. Considering the district's financial situation, an alternative approach to these small class sizes is needed.

Table 3-5.1. Total enrollments in advance placement classes at CCSD high schools

School	Biology	Calculus AB	Chem.	English Lang.	English Lit.	Physics	Psych.	Spanish Lang.	Statistics	U.S. Govt.	U.S. History	World History	Total
Adv. Technologies Academy	30	49		66	60	32	28		37	51	68	48	469
Arbor View HS	25	39		97	65		55	29	28	104	117	95	654
Basic HS	51	38	13	79	80	27	28	6	31	72	72	46	543
Bonanza HS		18		47	45					59	70		239
Boulder City HS		18	10	36	28						19	19	130
Canyon Springs HS		17		57	75		28	2	67	101	117	81	545
Centennial HS	59		25	93	89		16	14		153	102	33	584
Chaparral HS	20		13	16	8		14	13	27	29	19	18	177
Cheyenne HS	16	24		26	63		11	12		20	21	18	211
Cimarron-Memorial HS		16	21	28	36	20	25	12	22	45	68		293
Clark HS	141		24	191	206	18	51	13	33	207	171	238	1293
Coronado HS	39	27	48	117	57		146	37	40	46	94	140	791
Del Sol HS	20	21	15	27	19					28	23		153
Desert Oasis HS	12	36	10	36	22		68		36	38	33	50	341
Desert Pines HS		9		37	57					48	84	72	307
Durango HS		20	27	69	29			17	46	29	23	38	298
East Career & Tech Academy			15	68	152				51	73	88	300	747
Eldorado HS		12			23					49	42		126
Foothill HS	18	37	11	68	58			10	15	24	38	47	326
Green Valley HS	7	85	25	104	71		84	18	61	59	109	118	741
Las Vegas Academy	12	20			64			17	18	61	50	34	276
Las Vegas HS	32	23		89	50		45		28	52	42	81	442
Legacy HS	28	26	39	52	14		51	18		53	21	27	329
Liberty HS	29	21	19	84	30			14	21	73	45	79	415
Moapa Valley HS		16											16
Mojave HS	8	13	3	14	41		18	9	12	80	30	58	286
NW Career & Tech Academy	38	25		96	19		54	16	27	33	28	56	392

School	Biology	Calculus AB	Chem.	English Lang.	English Lit.	Physics	Psych.	Spanish Lang.	Statistics	U.S. Govt.	U.S. History	World History	Total
Palo Verde HS	25	73	17	84	23	8	21	16	24	59	100	64	514
Peterson Behavior JR/SR HS								10					10
Rancho HS	8	47	13	48	41	15	16		21	84	45	57	395
Sandy Valley JR/SR HS										57			57
SE Career & Tech Academy		31		26	28			15	11	22	25		158
Shadow Ridge HS	23	18		39	24		26	7			28	30	195
Sierra Vista HS	50	69	22	15	35			6	51	34	28	39	349
Silverado HS		55	26	46	46	19	68	13	16	48	33	62	432
Southwest Career & Tech			13	45				4			106	70	238
Spring Valley HS	39	40		74	50			20	89	57	73	53	495
Sunrise Mountain HS		7	14	21	15		31	17		15	32	24	176
Valley HS	18		2	27	22			4		48	54		175
Veterans Tribute CTA											13		13
Virgin Valley HS		19	14	26	21						26		106
West CTA												196	196
West Prep Jr/Sr HS		8		21				26		21			76
Western HS		8		17	18			14	7	17	22	23	126
Total	748	985	439	2086	1784	139	884	409	819	2049	2179	2314	14835
Sections <25 Students	19	29	22	23	21	7	10	30	12	16	23	21	233
# of Students in <25 classes	301	510	322	431	412	112	169	383	204	452	429	411	4136

Source: CCSD Student Data Services.

The CCSD Virtual High School (VHS) offers courses online. It has a full time enrollment of 150 students, and a part time enrollment of 8,800 students taking one or more online courses. These students are enrolled from all parts of the school district and are not concentrated in any one area. Part-time students typically enroll at VHS because their home school does not offer the course or because there is a schedule conflict that prevents them from taking the course at their home school.

The Virtual High School currently offers 12 Advanced Placement courses, all taught by highly qualified CCSD teachers[25]:

- English Language and Composition AP-4670
- English Literature and Composition AP-4680
- Spanish Language AP-3361
- Calculus AB AP-4880
- Statistics AP-4730
- Biology II AP -6770
- Chemistry II AP-6860
- Physics II AP-6910
- Psychology II AP-7230
- U.S. History AP-7030
- U.S. Government AP-7050
- World History AP-7010

The calculus and statistics classes are offered in alternating years. For 2011-12, statistics is being offered. VHS is not offering the AP Psychology course in 2011-12. Depending on interest, not all three of the science courses are offered every year.

VHS AP classes are offered in an asynchronous model that also includes synchronous elements. Some teachers hold online Wimba[26] sessions that are synchronous; others hold in-person tutoring sessions to supplement available asynchronous and synchronous online tutoring.

VHS has not yet established a ceiling on enrollment in its AP classes, but school administrators estimate that 45 students would likely be the appropriate limit. Expanding AP enrollment (and possibly course offering) might require an increase in the number of VHS teachers, but this increase would be more than offset by a district-wide reduction in teaching costs associated with low attendance AP courses.

Fiscal Impact

[25] According to VHS principal

[26] An online classroom environment. Students and teachers meet there synchronously.

The district should establish a policy of requiring schools to provide low enrollment AP courses online through the Virtual High School. Based on 2010-11 data, moving the 4,136 students served in the 233 low enrollment AP sections from the face-to-face courses to VHS, would free-up teaching time equivalents of 46.6 full-time teachers (233 / five periods of teaching per day). At approximately $80,000 in salary and benefits, this could reduce costs by up to $3,728,000 annually. Assuming these AP courses were all offered at VHS, an estimated 10 additional teachers would need to be hired, at a total annual cost of $800,000.

The district could apply a similar approach to many other low enrollment offerings at the secondary schools and reap additional fiscal benefits. This will likely require a longer lead time, as VHS may have to hire teachers in new subject areas and develop new online content. However, the cost reductions could be even more substantial than that possible with the AP courses.

Recommendation 3-5.1	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Convert low enrollment Advanced Placement courses to CCSD's virtual learning model.	$0	$2,928,000	$2,928,000	$2,928,000	$2,928,000	$2,928,000
Total	**$0**	**$2,928,000**	**$2,928,000**	**$2,928,000**	**$2,928,000**	**$2,928,000**

Magnet Schools

CCSD operates 17 magnet schools with a combined 2011 enrollment of 25,790 students. Not all 17 schools are whole school magnets; some are magnet programs within a regular school setting. Thus, not all of the nearly 26,000 students in these schools are afforded magnet opportunities. In some district documentation, magnet and career/technical academies are considered together. This analysis reviews just magnet schools.

Beyond the regular per student and per school allocations, the magnet schools receive additional staffing allocations and funding allocations that may be used for other additional staffing.

Recommendation 3-5.2: Eliminate both the theme coordinator and recruiting counselor positions at the district's magnet schools.

Theme Coordinators

Theme coordinators are school-based teaching staff responsible for coordinating aspects of each school's magnet program. These duties include providing positive youth development activities, working with community partners and advisory board leaders, career planning, internships/job shadowing, and project-based learning instruction, among others. At specific sites, these positions may involve other functions designated by the principal, such as co-teaching.

While coordinators are licensed teachers, they do not carry a regular teaching load, and their positions are not counted as teacher positions when class size ratios are applied to establish teacher allocations. In 2011-12, there were 15 theme coordinators, paid a combined salary of $830,741. Including benefits, these positions require $1.11 million per year.

Based on case studies, guidance from the U.S. Department of Education notes that having someone at the school level to coordinate magnet activities is important to success.[27] While the guidance emphasizes that the coordinator should not be the school principal (due to the many competing demands on a principal's time), it does not require that the coordinator be a full-time position. Instead, it may be "a lead teacher who does part-time coordination work" (p. 12). The guidance further notes the importance of marketing magnet programs, but give examples of where the marketing/recruiting is done through district-level activities.

CCSD should eliminate the theme coordinator position and assign duties currently performed by theme coordinators to existing classroom teaching staff and/or performance managers in the new Performance Zones.

Recruiting Counselors

In addition to the theme coordinators, secondary magnet schools receive additional counseling staff, but they do not function primarily as counselors. The additional counselors are called "recruiting counselors" whose primary responsibilities are marketing their magnet program, recruiting students into the program, and managing the magnet application and enrollment process.

According to central office staff, the student recruiting season runs from October 1 through February for daily recruitment. From March through September, recruiting counselors are involved with student applications, appeals, the lottery selection process and other counseling duties. Some of the recruiting counselors also share in a portion of the student caseload for typical counselor activities. However, this is a school-based decision, determined by each magnet principal. Available district staff were unable to provide estimates regarding the time the average recruiting counselor spends on non-recruiting, typical counseling duties.

The recruiting counselors are not identified in the district's FTE data, so the allocation of all counselors at magnet schools is considered here. In 2011-12, there were 62 counselors at CCSD secondary magnet schools, with an average salary of $59,749 (see Table 3-5.2).

Table 3-5.2. Allocation of Counselors at secondary magnet schools

Name of School	2011 Enrollment	Grades Served	Counselor FTE	Average Salary
Bridger Academy	1325	6-8	3	$63,226
Hyde Park Academy	1729	6-8	3	$60,398

[27] U.S. Department of Education, Office of Innovation and Improvement, *Innovations in education: Creating successful magnet schools programs.* Washington, D.C. 2004.

Name of School	2011 Enrollment	Grades Served	Counselor FTE	Average Salary
Cashman Academy	1454	6-8	3	$57,122
Knudson Academy	1284	6-8	4	$62,894
Gibson Academy	1035	6-8	2	$50,432
Martin IB	1363	6-8	3	$57,004
Canyon Springs High School	2561	9-12	7	$67,916
Clark High School	2671	9-12	8	$57,976
Desert Pines High School	2277	9-12	7	$64,939
Las Vegas Academy	1614	9-12	5	$58,748
Rancho High School	2979	9-12	9	$56,966
Valley High School	2962	9-12	8	$59,363

Source: CCSD 2010-11 Count Day Enrollment, CCSD Finance and Operations Division Full-Time Equivalents file.

The CCSD staffing guidelines for counselors, as published in the *2011-12 CCSD Budget and Statistical Report*[28], notes this staffing formula for counselors:

- At the elementary level, a goal of one counselor per 500 students, but a recognition that budget constraints will not allow this to be realized.
- At the middle schools, an allocation of one counselor per 500 students or major fraction thereof based on fall enrollment.
- At the high schools, an allocation of one counselor per 400 students or major fraction thereof based on fall enrollment.

The American School Counselor Association (ASCA) recommends a student to counselor ratio of 250 to one[29]. However, as of 2008-09, the national average was 457 to one, with only five states (Louisiana, Mississippi, New Hampshire, Vermont, and Wyoming) achieving the ASCA recommend ratio or better. In Nevada, the 2008-09 ratio was 511 to one.[30]

Comparing the 2010-11 counselor staffing at the secondary magnet schools with the 500 or 400 to one published CCSD ratio and the Nevada average of 511 to one reveals that magnet schools have from eight to 16 more counselors than those allocation formula would provide (Table 3-5.3.)

[28] http://ccsd.net/directory/budget-finance/publications/10-11_Budget/Budget_10-11_Complete.pdf

[29] www.schoolcounselor.org

[30] http://www.schoolcounselor.org/files/ratios%202008-2009.pdf

Table 3-5.3 Comparison of Counselor allocation at magnet schools to staffing guidelines[31]

Name of School	Counselor FTE	Counselor Allocation per CCSD Ratio	Counselor Overage per CCSD Ratio	Counselor Allocation at NV Avg.	Counselor Overage per NV Avg.
Bridger Academy	3	3	0	3	0
Hyde Park Academy	3	3	0	3	0
Cashman Academy	3	3	0	3	0
Knudson Academy	4	3	1	3	1
Gibson Academy	2	2	0	2	0
Martin IB	3	3	0	3	0
Canyon Springs High School	7	6	1	5	2
Clark High School	8	7	1	5	3
Desert Pines High School	7	6	1	4	3
Las Vegas Academy	5	4	1	3	2
Rancho High School	9	7	2	6	3
Valley High School	8	7	1	6	2

Source: CCSD Finance and Operations Division Full-Time Equivalents file, American School Counselor Association

Using the average salary of $59,749, eliminating eight (non-counseling) recruiting counselor positions would save $691,000 per year in salary and benefits. These duties should be reallocated to central office or performance zone staff.

Fiscal Impact

Eliminating the 15 theme coordinator and eight recruiting counselor positions would save the district approximately $1.81 million in salary and benefits per year ($9,032,345 over the next five years). These are non-teaching positions in the case of the theme coordinators and largely non-counseling positions in the case of the recruiting counselors.

[31] Two elementary magnet schools have counselor staffing above the CCSD staffing guidelines: Gilbert and Hoggard. As these do not appear to be recruiting counselor allocations, they have not been considered here.

Recommendation 3-5.2	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Eliminate both the theme coordinator and recruiting counselor positions at the district's magnet schools.	$0	$1,806,469	$1,806,469	$1,806,469	$1,806,469	$1,806,469
Total	**$0**	**$1,806,469**	**$1,806,469**	**$1,806,469**	**$1,806,469**	**$1,806,469**

CCSD Behavior and Continuation Schools

The district provides a variety of education alternatives for its students. One of the more significant alternative education programs is provided in five behavior schools and three continuation schools. The behavior schools serve students with disciplinary problems and expelled students. The continuation schools' enrollment is limited exclusively to students who have been expelled from their home school via a Board of Trustee-ratified expulsion. In 2009-10, the behavior schools enrolled 4,841 students and the continuation schools enrolled 1,355 students for at least a portion of the school year. Direct salary and benefit costs of these alternative schools total over $12 million annually.

School administrators submitted 4,544 recommendations for expulsion in 2009-10. Of these, only 22 (0.48 percent) were rejected by the Education Services Division (ESD), which oversees the program. Expulsions decreased from 2008-09 levels, when 5,295 expulsion recommendations were made, 61 were denied by ESD (1.15 percent) and 1,069 expulsions were ratified by the Board of Trustees. Expulsion rates vary among the schools from zero to nine percent of the student enrollment. Eight schools had expulsion rates of five percent or higher.

Students enrolled in the behavior schools were either recommended for expulsion or were directly placed in the behavior school by their home school principal without a recommendation for expulsion. Surprisingly, ESD staff does not maintain central statistics on the number of students directly placed into behavior schools by principals without expulsion recommendations, but principals of these schools estimate the proportion to be approximately 35 percent.

None of the regular school principals in focus groups conducted during this study supported the existing behavior/continuation school program models. Their concerns included:

- Students placed in behavior schools do not have access to adequate counseling while there, so the root causes of behavior are not addressed.
- Some students request to stay in the behavior schools after their assignment term has ended because they perceive that grading is easier in the behavior schools. Principals of regular schools also questioned the quality of academics in the behavior schools.

- When expelled former students of Career/Technical Education (CTE) schools complete their expulsion term, the CTE refuses to accept them back. This means that the comprehensive high schools must accept them.
- There appears to be great variation of practice in the length of assignment at the behavior schools, despite stated guidelines. Again, there is no central data to support an analysis of this thesis.

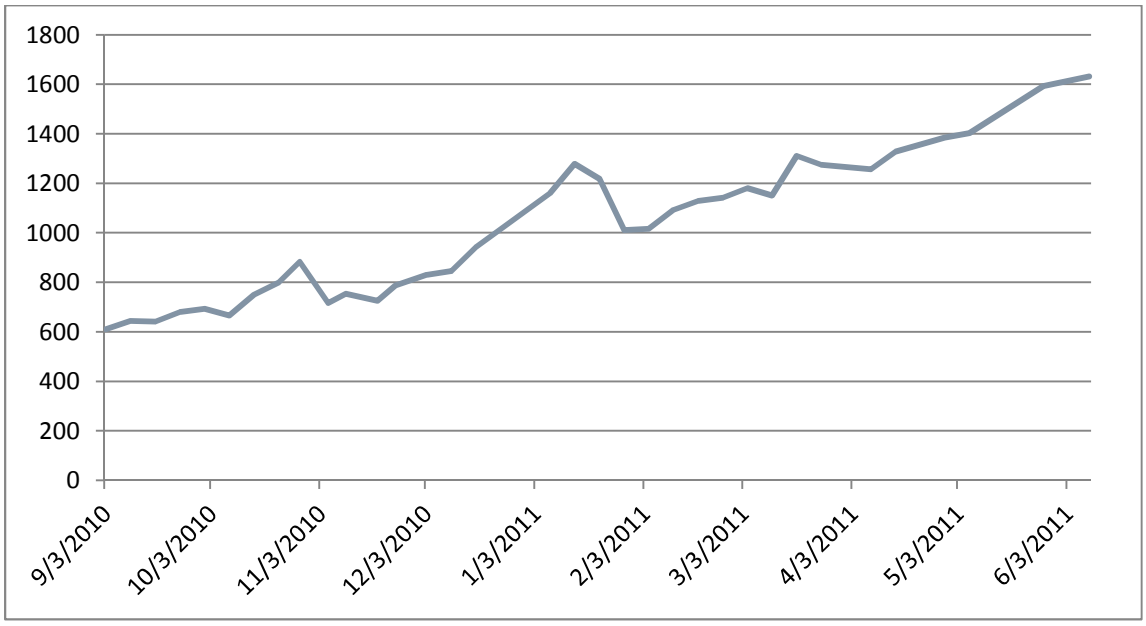
As noted above, data are not available to assess completely the validity of these perceptions.

Academic Managers in a focus group noted that current Board of Trustee regulations concerning expulsion and principal-directed transfers are too broad and subject to varied interpretations among the school principals. They noted that the district's discipline policy is generally one of "zero tolerance", and they also observed that wide variations in the application of the discipline code among the schools.

Principals in a focus group noted that they have modified past versions of discipline codes provided by their respective area superintendents and continue to use them.

Data on weekly enrollments in the behavior and continuation schools show a general increase throughout the school year, with spikes shortly after the annual official enrollment count day (September 24th in 2010-11) and around the winter break (Figure 3-5.1). There are variations in the patterns of weekly enrollment among the individual behavior and continuation schools.

Figure 3-5.1. Overall weekly enrollment in Behavior and Continuation Schools



Source: CCSD Student Data Services, July 2011.

The district does not have adequate performance measures in place to evaluate whether the behavior and continuation schools are producing improved student behavior. District staff estimates that only 20 percent of the students placed in behavior/continuation schools later return, but this estimated figure

could not be confirmed with readily available data. Moreover, ESD staff does not track the outcomes for students who have been assigned to a behavior/continuation schools and then returned to normal classes. One important measure of success would be whether students leaving behavior/continuation schools ultimately graduate, but the district does not track the dropout rate for these students separately.

A similar concern regarding behavior schools and continuation schools was expressed in a prior consultant study. The 2006 MGT of America report[32] noted:

> *During on-site visits, it was reported that the behavior schools and Continuation Schools were not consistently effective in improving the behavior or performance of students who attended the program. The behavior program was often referred to as an opportunity for time-out for the student and the student's school. In addition, instructional content is lacking. Students who attend the behavior program are on multiple academic levels, which makes it a challenge to plan and delivery of appropriate instruction for individual students. Given the short duration of the program, there are limited data to support that students are actually improving self-control and social interaction and acquiring new life skills.*

CCSD staff, including principals in both comprehensive high schools and behavior schools, indicated that little has changed since this recommendation was made in 2006.

Recommendation 3-5.3: Evaluate CCSD's behavior and continuation schools, the referral and exit procedures, and the impact on student performance and other outcomes.

CCSD should track performance and discipline information on students before, during and after their enrollment in a behavior or continuation school to determine their effectiveness. Referral and exist procedures should also be evaluated and tested to ensure that consistent application is occurring across the district. This evaluation work should contribute to more effective behavior and continuation schools and more effective practices for addressing discipline issues in the referring schools.

Fiscal Impact

This recommendation can be implemented with existing resources. (See related recommendation in the following section to expand the district's program evaluation capacity.)

[32] *Clark County School District Financial Management Review,* MGT of America, October 2006.

Section 6 – Evaluation of Academic Programs

Two of the questions in the scope of work for this project related to the evaluation of specific CCSD academic programs.

1. What existing educational programs yield the greatest return on investment and could be expanded (within the constraints of existing resources) to increase student achievement?
2. What, if any, educational programs should be abandoned, with resources being redirected to an existing program(s) and/or a new program(s) to increase student achievement?

To make appropriate recommendations regarding which programs should be expanded and which should be abandoned, the review team requested student achievement data and program participation data that would enable statistical analyses examining the relative impact of various programming on student outcomes. Because of the limitation of program participation data, judgments about specific programs could not be made. This section presents the results of some analysis conducted with the available data, and provides a recommendation for CCSD to collect this data going forward to support the evaluation of specific programs and the determination of the district's Return on Investment (ROI).

While student-level data were available on test scores and demographic variables of interest, the district does not maintain critical data elements necessary for conducting appropriate outcome analyses. For example, there was no data regarding levels of implementation of particular programs, the students that are served by particular programs (e.g., participation indicators), or the amount of instruction received (e.g., a dosage variable). As a result, it was not possible to examine the influence of any given program on school-level or student-level outcomes. To do so, data will be needed on both the inputs (which students participated in which programs, what were their levels of participation, and what were the levels of implementation) and the outcomes (student-level results among those participants, and among non-participants.)

The district did provide student-level demographic and test score data, along with a data set indicating which programs were being "implemented" at which of the district's schools. The only program participation data available at the school level related to programs targeting ELLs and nine other specific interventions relating to various subject areas.

The following major assumptions were required to examine the data provided. Since school was not in session during the course of this study, classroom observations and interviews with teachers about specific programs could not be performed. The assumptions made are listed below:

- A school that is potentially implementing a given program is actually implementing the program
- That implementation of a given program is occurring with high fidelity to program design
- That limited English proficiency (LEP) students in a given school are participating in ELL programs at that school

- That students across all grades served in a given school are participating in a given program
- That programs should have an observable impact on both reading and math passing rates

With these assumptions made, data on students' passing rates on the reading and math assessments were used to compute a change score from 2009 to 2010 for each school. For all schools, the number of students meeting or exceeding standards (scoring a 3 or a 4) on the Criterion Reference Test (CRT) were summed to derive a total number/percentage of students on each school passing in 2009 and 2010. Next, a change score was computed such that the passing percentage among students in 2009 at a given school was subtracted from the passing percentage among students in 2010 for that school. If a school's passing rate increased from one year to the next, the result would be a positive change score; if a school's passing rate decreased from one year to the next, the result would be a negative change score.

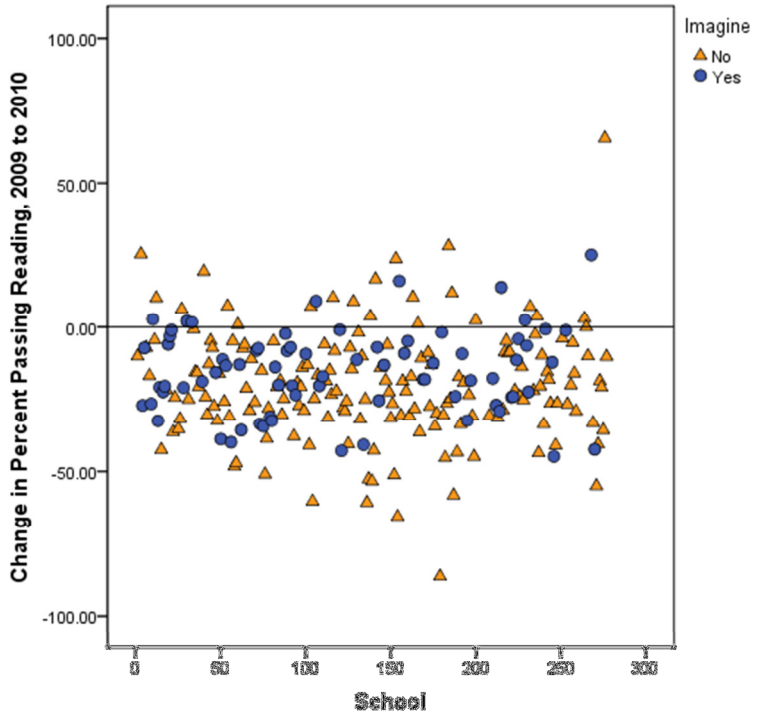
Programs Targeting English Language Learners

To examine programs targeted to English Language Learners, the process described above was followed to create change scores at the school-level, but the analysis was developed using only students designated as LEP, making the assumption that LEP students are actually participating in ELL programs at these schools. It is important to note that the total number of LEP students in a given school varies widely, thus a 50 percent passing rate in one school may mean that two of four LEP students met or exceeded standards, whereas in another school a 50 percent passing rate might mean that 120 of 240 LEP students earned a passing score. Though this is a weakness to this approach, without student-level data indicating which students participated in which programs, there is no other method appropriate for examining change in passing percentages.

Four programs targeted toward ELL students were utilized in this analysis: (1) Imagine Learning, (2) Rosetta Stone, (3) LeapFrog, and (4) Trophies reading Series. These programs were chosen only by the number of CCSD schools utilizing the programs in 2009-10.

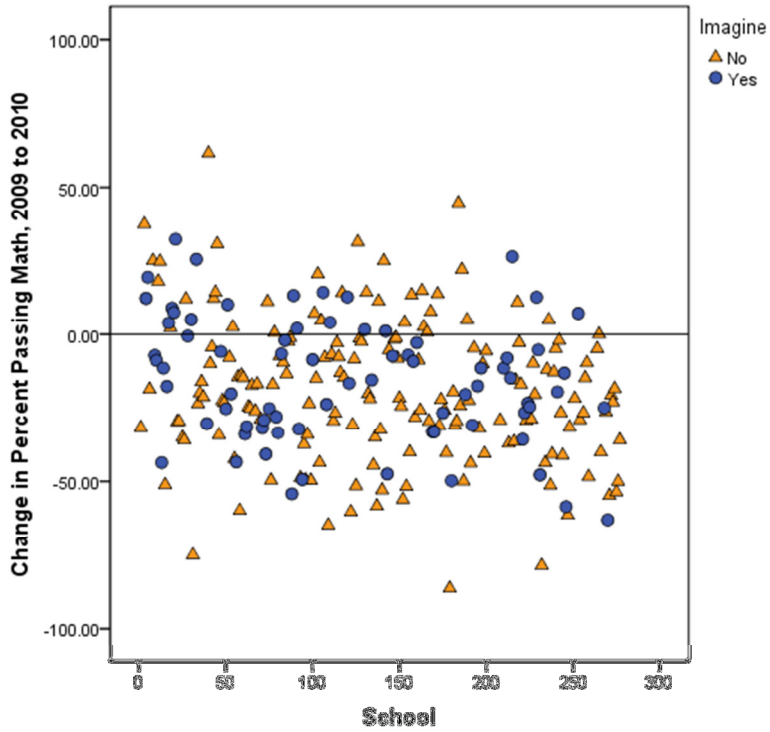
The first program examined was the Imagine Learning program. Figure 3-6.1 and Figure 3-6.2 illustrate the change in passing rates among all LEP students at each school for all schools in the district from 2009 to 2010 on the CRT. Each school is represented by a change score (along the y-axis, with zero change indicating that the passing percent among LEP students was the same in 2010 as it was in 2009). Points below the 0 line represent schools among which passing rates went down from 2009 to 2010. Points above the 0 line represent schools among which passing rates went up from 2009 to 2010. Schools with the Imagine program are designated by a blue circle. As can be seen, passing rates from 2009 to 2010 decreased among LEP students among the majority of all schools in both reading and math.

Figure 3-6.1. Change in passing rates in reading (Imagine program implemented at 88 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

Figure 3-6.2. Change in passing rates in math (Imagine program implemented at 88 schools)



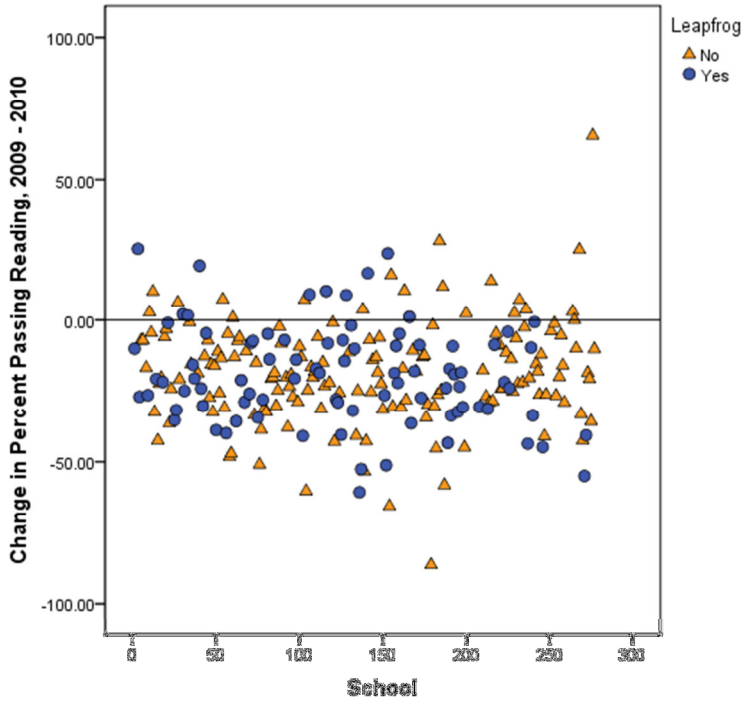
Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

From 2009 to 2010, 87.7 percent of schools demonstrated a decrease in the percentage of LEP students who met passing standards on the CRT in reading. Among schools with the Imagine program, this decrease was evident among 89.2 percent of the schools. In math, the story was similar, with 77.8 percent of all schools decreasing in their passing percentage among LEP students, and 74.3 percent of schools with the Imagine program showing a decrease in the passing percentage of LEP students on the math tests.

These graphs and statistics must be interpreted carefully as there are many limitations to the data being reported, as described earlier in this section. The resulting scatter diagrams, which fail to show any sort of pattern among program-schools, or any systematic differences between program schools and non-program schools, do not suggest that the program is not working, nor do they provide any evidence or promise that the program is working. Rather, the random-ness of the data points (the distribution of program schools both above and below the zero-change line) highlights the extent to which the "noise" in the data could be obscuring any potential patterns that may exist. Without having more detailed information about which students participated in the program, more granular analyses of program impacts are not possible.

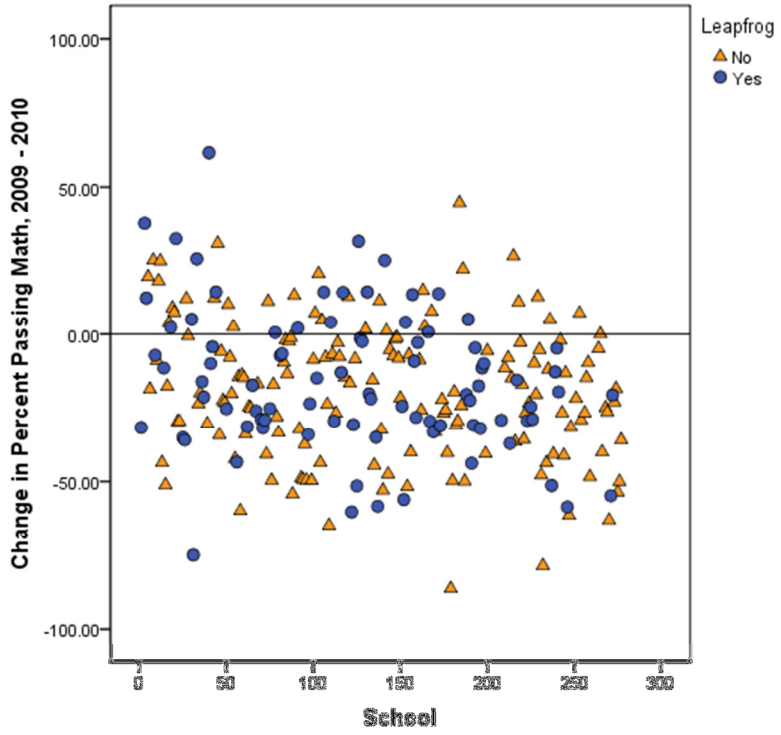
A similar lack of pattern emerges when examining change in passing percentages among LEP students for three other ELL programs: LeapFrog, Rosetta Stone, and Trophies Reading Series. Figure 3-6.3 and Figure 3-6.4 displays change in passing percentage among LEP students in reading and math for all schools, with schools providing the Leapfrog Program indicated with blue circles. Again, there are an equal number of program and non-program schools above and below the zero-change line, and no observable pattern of change among program schools (e.g., program schools are not clustered near the top of the change scores, or more heavily clustered around positive changes scores). Eighty-nine percent of schools implementing the Leapfrog Program showed a decrease in passing percentage of LEP students from 2009 to 2010 in reading (compared to 87.7 percent district-wide), and 75.6 percent decreased in math (compared to 77.8 percent district-wide).

Figure 3-6.3. Change in passing rates in reading (Leapfrog program implemented at 98 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

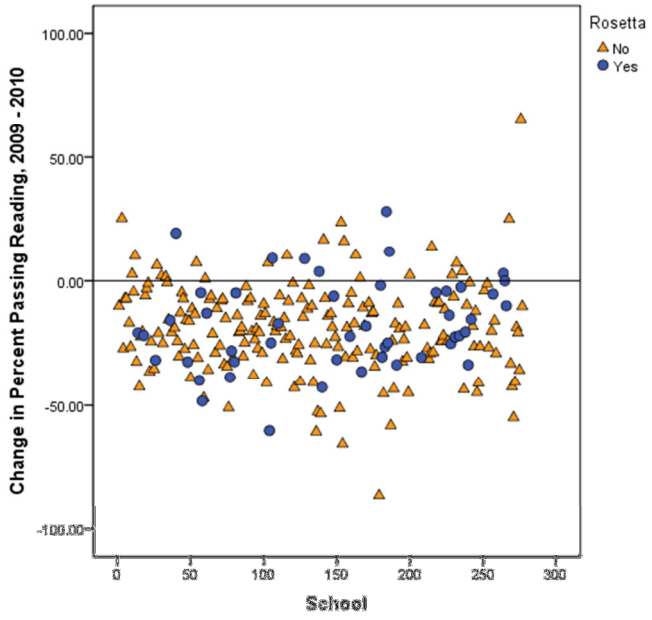
Figure 3-6.4. Change in passing rates in math (Leapfrog program implemented at 98 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

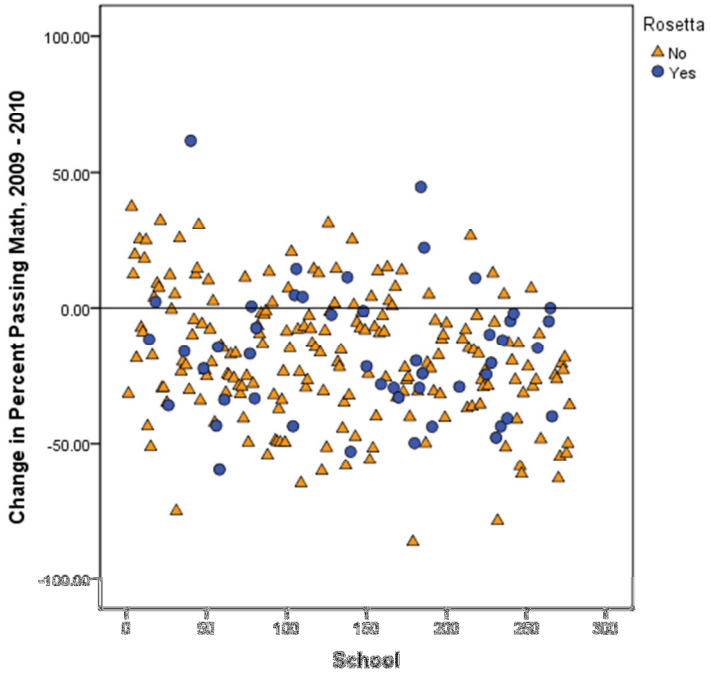
The Rosetta Stone program was implemented in 61 schools that had data for both 2009 and 2010. As can be seen in 3-6.5 and Figure 3-6.6, there is no observable pattern to the change scores among those program-schools, based on passing percentages among LEP students. While the majority of schools' passing rates decreased from 2009 to 2010, the number of Rosetta Stone program schools above the zero change line is not disproportionate in any systematic way from the number of schools above the zero line that did not implement the program. 83.3 percent of schools implementing the Rosetta Stone program demonstrated decreasing passing rates among LEP students in reading (compared to 87.7 percent district-wide), and 77.1 percent decreased in math (compared to 77.8 percent district-wide).

Figure 3-6.5. Change in passing rates in reading (Rosetta Stone program implemented at 61 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

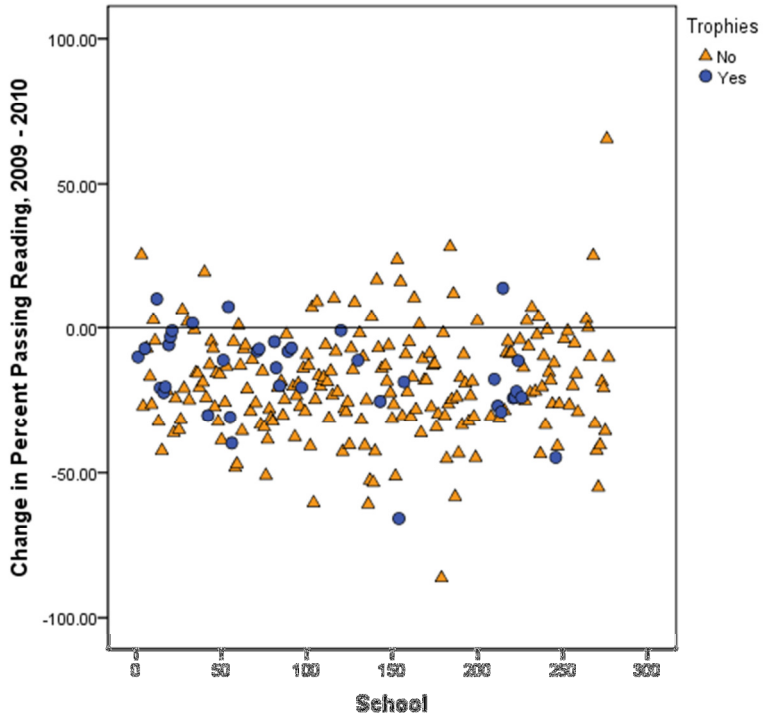
Figure 3-6.6. Change in passing rates in math (Rosetta Stone program implemented at 61 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

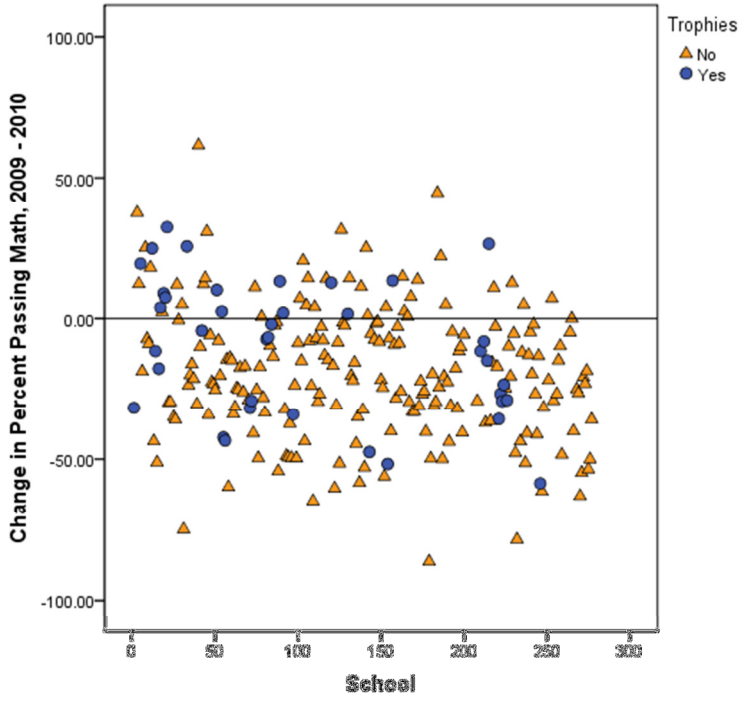
For schools implementing the Harcourt Trophies Reading Series, there was no particular pattern to the change in scores among LEP students that is observable without knowing which students were impacted by the program. When looking at whole-school passing rates among LEP students, 89.5 percent of schools decreased in reading CRT scores (compared to 87.7 percent district-wide), and 60.5 percent decreased in math CRT scores (compared to 77.8 percent district-wide). (See Figures 3-6.7 and 3-6.8 and Table 3-6.1) More detailed information about program participation at the student-level is required to begin to analyze whether or not program-participation impacted student performance.

Figure 3-6.7. Change in passing rates in reading (Trophies program implemented at 41 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

Figure 3-6.8. Change in passing rates in math (Trophies program implemented at 41 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

Table 3-6.1 Summary of findings for each of the four ELL programs

Percent of schools showing a decrease in passing percentage from 2009 - 2010	Reading	Math
Overall, district-wide	87.7%	77.8%
Among schools with the Imagine Learning ELL Program	89.2%	74.3%
Among schools with the Leapfrog Program	88.4%	75.6%
Among schools with the Rosetta Stone Program	83.3%	77.1%
Among schools with the Harcourt Trophies Reading Series	89.5%	60.5%

Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

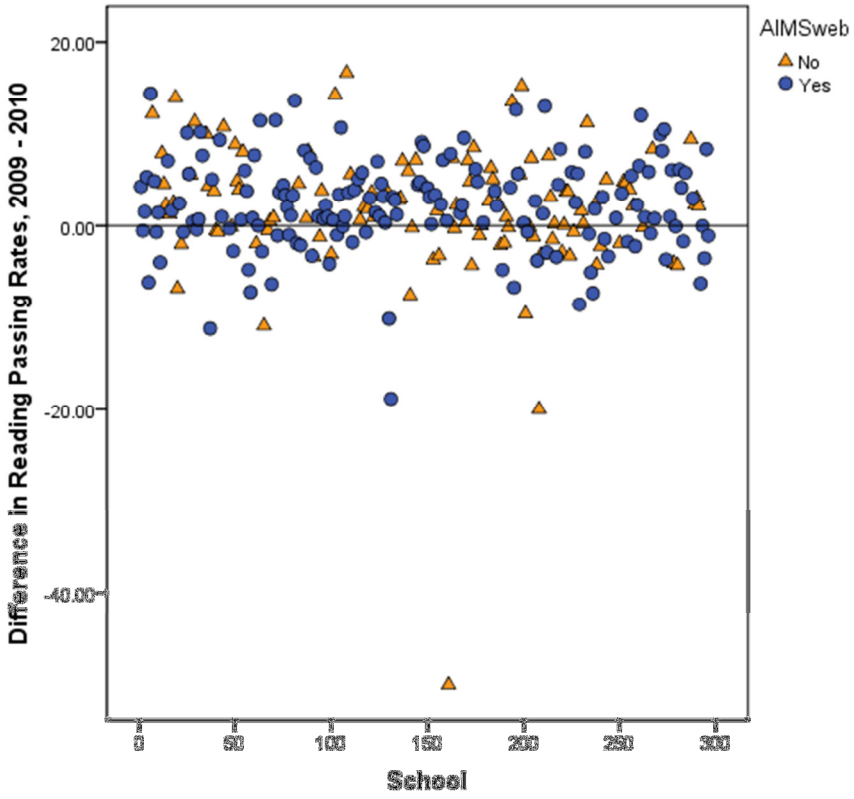
Intervention Programs and Measurement Systems

Three intervention programs and one student performance measurement system not targeted specifically to ELL students, were also examined: the AIMSweb program, the Compass Learning program, the Imagine Learning English program, and the Read 180 program. Of the 25 intervention programs currently implemented at schools within CCSD, these four were targeted for analysis as they were implemented in the greatest number of schools. For these programs, changes in passing percentages were examined for all students in a school. Unlike passing percentages among LEP students, which mostly decreased from 2009 to 2010, when examining passing rates among all students in a school, the majority of schools showed an increase in passing percentages from 2009-2010. School-level reading and math scores were examined, looking at all schools in the district and identifying those schools implementing the program. It is important to note that all four programs do not necessarily target both reading and math subject areas. It is common, however, to examine outcomes in both areas, as programs that impact changes in one often have carryover impacts on the other subject area. Additionally, schools that improve performance in one area often are implementing major efforts (i.e., organizationally, structurally, academically, etc.) that will have impacts in both reading and math test performance.

Figure 3-6.9 and Figure 3-6.10 display change in passing percentage from 2009 to 2010 for all schools in the district, when examining scores for all students on the school. Schools implementing the AIMSweb measurement system are indicated by blue circles. A zero score on the y-axis represents schools with no change in passing percentage from 2009 to 2010. Schools above the 0 line showed an increase in passing percentage, and schools below the 0 line showed a decrease in passing percentage. This scatterplot clearly shows that the majority of schools increased in reading and math passing percentages from 2009 to 2010 when all students' scores are examined. However, the schools implementing the AIMSweb program are not systematically more or less likely to have a positive change score than the others. 70.4 percent of program schools increased in reading passing percentages, compared to 69.3 percent district-wide, and 74.8 percent of program schools increased in math passing percentages, compared to 68.6 percent district wide. Any differences observed cannot be attributed to the presence of the program, as

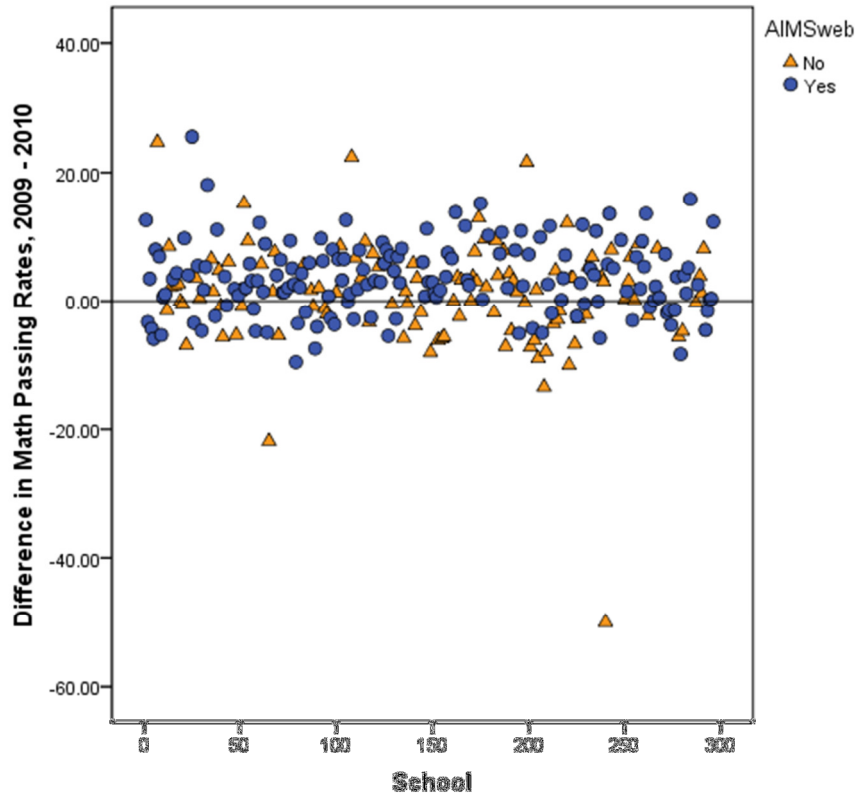
analytic models controlling for various influences and contextual factors cannot be conducted due to unavailability of necessary data.

Figure 3-6.9. Change in passing rates in reading (AIMSweb program implemented at 164 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

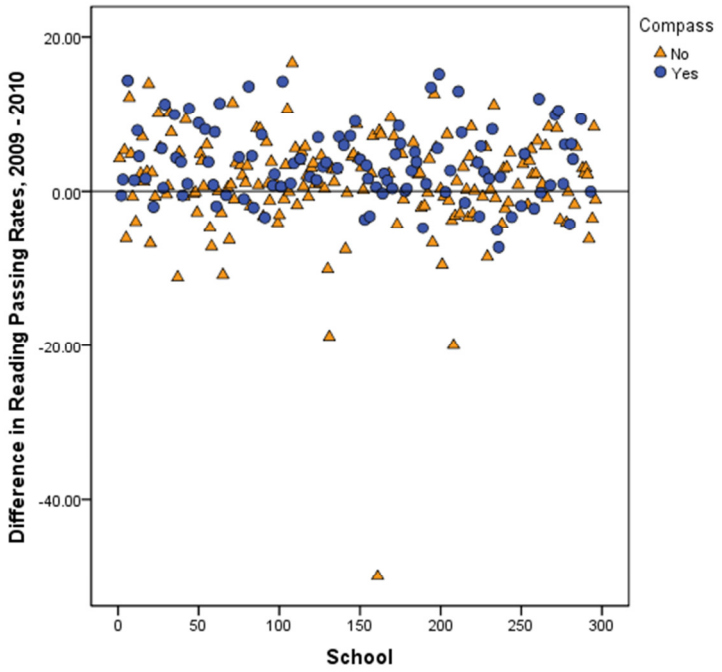
Figure 3-6.10. Change in passing rates in math (AIMSweb program implemented at 164 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

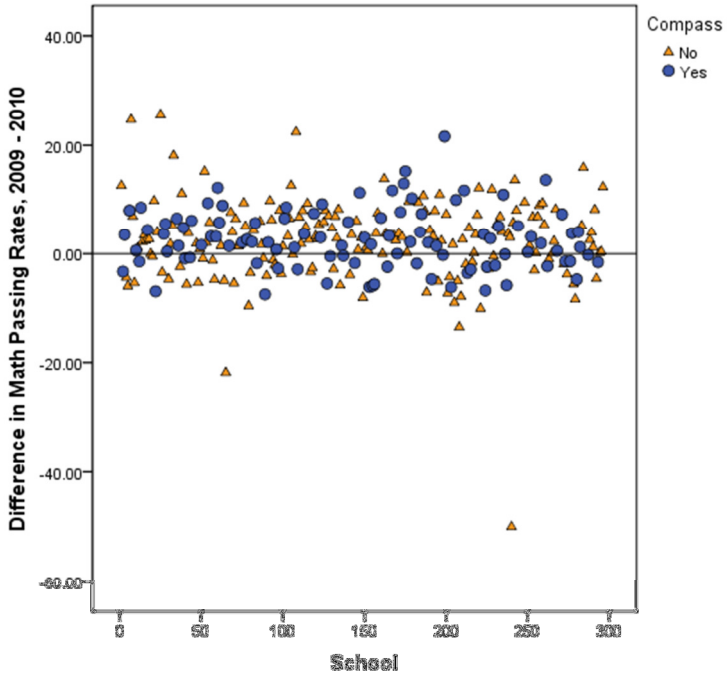
Figure 3-6.11 and Figure 3-6.12 display the same information for schools implementing the Compass Learning program. For these schools, passing percentages on the reading tests improved among 77.5 percent of schools (compared to 69.3 percent district-wide), and 66.7 percent demonstrated increased passing percentages in math, compared to 68.6 percent district-wide. Again, these figures demonstrate random-ness in the distribution of program schools above and below the zero change line (in other words, the distribution of change is proportionate to the distribution of change among all schools in the district).

Figure 3-6.11. Change in passing rates in reading (Compass Learning program implemented at 105 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

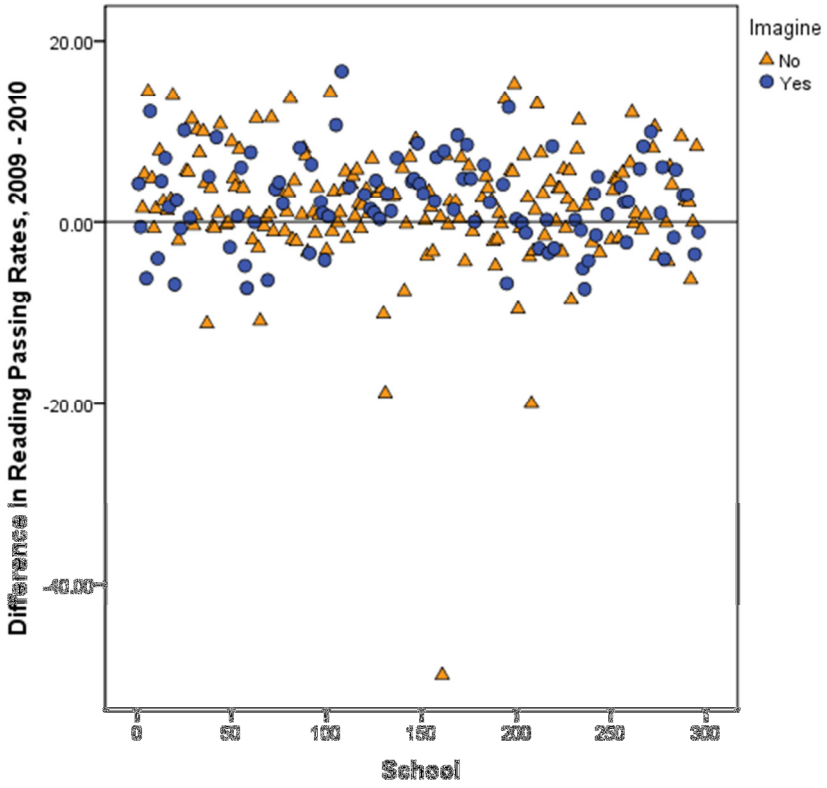
Figure 3-6.12. Change in passing rates in math (Compass Learning program implemented at 105 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

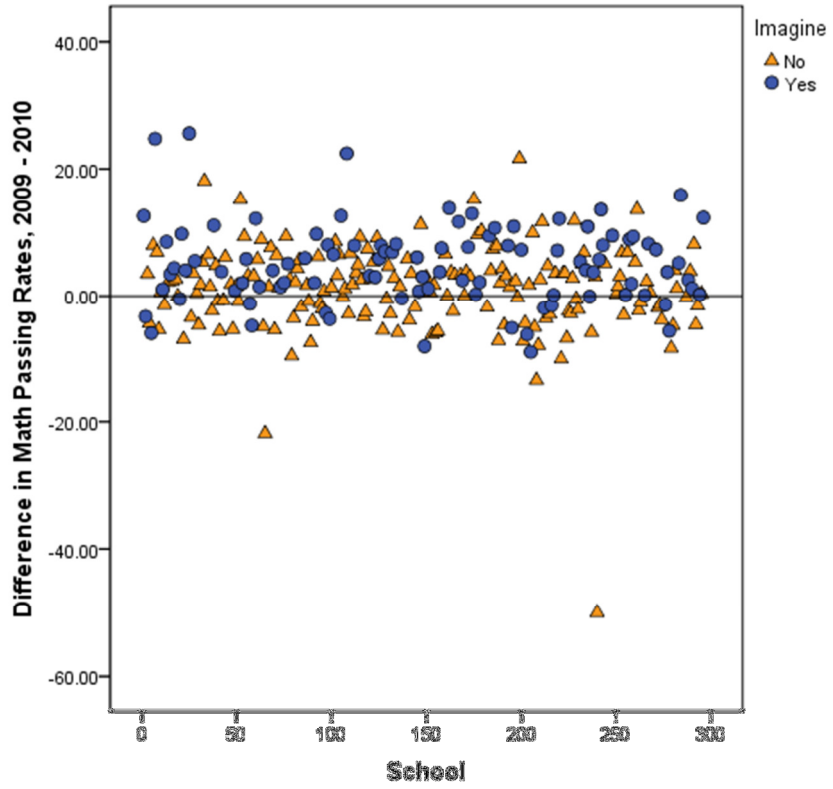
Figure 3-6.13 and Figure 3-6.14 displays the scatterplot organized by schools implementing the Imagine Learning English program. Among all students at the school, passing percentages increased among 71.9 percent of schools in reading, and among 82.3 percent of schools in math. No causal statistical models are being conducted, therefore it is not possible to attribute any observed differences to influences of the program.

Figure 3-6.13. Change in passing rates in reading (Imagine Learning English program implemented at 98 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

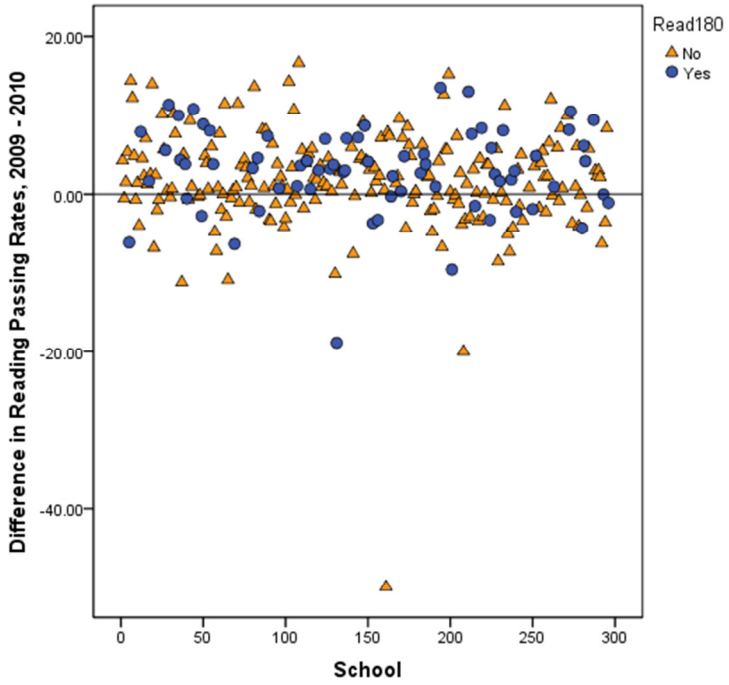
Figure 3-6.14. Change in passing rates in math (Imagine Learning English program implemented at 98 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

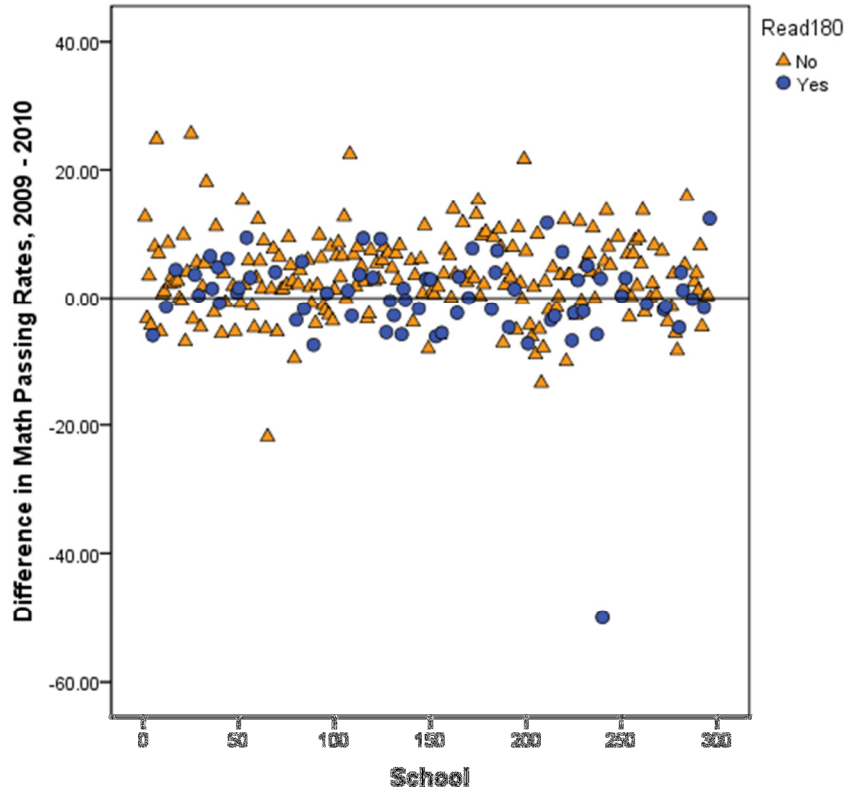
Comparable figures are displayed in Figure 3-6.15 and Figure 3-6.16 for the Read 180 program. 75.7 percent of schools implementing the Read 180 program increased in passing percentages in reading from 2009 to 2010 (compared to 69.3 percent district-wide), and 54.3 percent of program schools increased in math from 2009 to 2010 (compared to 68.6 percent district-wide).

Figure 3-6.15. Change in passing rates in reading (Read 180 program implemented at 70 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

Figure 3-6.16. Change in passing rates math (Read 180 program implemented at 70 schools)



Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

Table 3-6.2 summarizes the percentage of schools implementing each program that showed an increase in overall passing rates from 2009 to 2010, for both math and reading.

Table 3-6.2. Percent of schools showing an increase in passing percentage from 2009 - 2010

	Reading	Math
Overall, district-wide	69.3%	68.6%
Among schools with the AIMSweb Program	70.4%	74.8%
Among schools with the Compass Learning Program	77.5%	66.7%
Among schools with the Imagine Learning English Program	71.9%	82.3%
Among schools with the Read 180 Program	75.7%	54.3%

Source: Student CRT scores provided by CCSD, 2011; school-level program data provided by CCSD, 2011

It is important to note that none of the findings reported above should be used to suggest any causal relationship between program implementation and findings. It is quite possible that schools with lower passing percentages were more likely to implement particular programs, or that schools with lower test scores were more likely to implement drastic improvement efforts in addition to the programs examined here. Therefore, any results that may appear to suggest improved performance (or decreased performance) among program schools, cannot be attributed to the presence or absence of any particular program.

In order to do so, it would be necessary to run statistical models that account for various influences on student outcomes, to approximate causality, and enable interpretations that suggest an "effect" or an "impact". An example of such a model would be a hierarchical linear model (HLM). To conduct an HLM model, student-level historical data, combined with program participation data, is used to statistically determine whether students who participated in a given program outperformed students who did not participate in that program. An HLM model partitions the variance in the data that is due to individual student-level influences or differences (such as pre-existing academic aptitude, demographic influences), and that which is attributable to shared school-level influences (such as differences between particular schools), and error variance, or variance attributable to unmeasured variables, or noise. The result of an HLM model can suggest whether observed scores on assessment tests between participating and non-participating students are different *above and beyond* the extent to which they differ because of these other influences. In order to conduct such a test, more granular programmatic data are needed, most importantly data that indicates participants versus non-participants.

Recommendation 3-6.1: Enhance program evaluation capacity to support calculation of Return on Investment in academic programs and interventions.

In order to effectively gauge the impact of various instructional programs on student outcomes (and beyond that, to be able to assess the program cost effectiveness, or ROI of different programs), CCSD must put into place much better student-level data collection and data management processes. The

implementation strategies below provided below are designed to provide CCSD with strategies that would provide the district with the data necessary to actually determine which programs should be expanded, and which should be abandoned. A separate but related recommendation to track program and intervention expenditures to support an ROI calculation is presented in the *Chapter 4 – Budget Process and Transparency* of this report.

Implementation of this recommendation should consider the following implementation strategies:

Create Program-Level Inventory Across Schools. The district should create an inventory of all instructional programs being used in each CCSD school that tracks which programs are being implemented on which schools, and within which grades. This inventory should be updated annually to track which programs are no longer in use, and to add additional new programs each year.

Track Program Participation at the Student Level. For programs that the district wants to evaluate, CCSD should maintain student-level records that track which students are participating in which instructional programs. For instance, an ELL program will only serve a sub-set of students. A database must be maintained that tracks participation patterns for those students. This database must track student information using the same unique identifier (e.g., student ID) that enables linking back to other data systems in the district containing pertinent student information, such as demographic or test score data.

Create Evaluation Plans for Key Programs of Interest

When implementing new instructional programs on CCSD schools, the CCSD district office should develop an evaluation plan which can measure the impact of various instructional programs or initiatives on student achievement and determine the return on investment for those programs. Evaluation plans should include, at a minimum:

- The use of quantitative and qualitative research methods to determine implementation fidelity, program outcomes, and return on investment.
- The use of experimental or quasi-experimental research designs, which include groups of students provided with the instructional intervention and comparable students at the same school or peer schools in CCSD who were not provided with the instructional intervention under review.
- Analyses which include program effects and program expenditures to assess the cost effectiveness of the instructional program.

Pilot New Programs. CCSD should consider piloting new programs (in the formal sense of the word, with appropriate research design guiding the pilot) such that the potential impacts of the program can be determined in a smaller, more controlled environment prior to determining whether full-scale implementation is desired. True pilots are useful ways of testing impacts, as measurement is more

controlled, data management is not as difficult, and results are less likely to be confounded by error/noise).

Consider Outsourcing. CCSD should consider the benefits of outsourcing the program evaluation function versus increasing in-house staff to expand the capacity of program evaluations. Outside contractor cost may be more expensive per hour, but would represent a variable cost that could be adjusted annually. Outside contractors will also be likely to have a higher degree of objectivity, or perceived objectivity, related to evaluation findings.

Fiscal Impact

Academic program evaluation capacity needs to be increased to support ROI calculations for selected programs and interventions, including those that are not grant funded. Additional funds will be needed to support the tracking of student participation in various programs and interventions. Based on an additional 10 FTEs at an average pay and benefit level of $100,000 each, it is estimated that the staff investment should be $1 million per year for these efforts. An additional $1.5 million is needed for contracted program evaluation services in specialized areas and for licensing fees ($300,000 annually from 2014-15 to 2016-17) for the district's data analysis tools.

Recommendation 3-6.1	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Additional program evaluation staff (10 FTEs at $100,000 each)	$0	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)	($1,000,000)
Contracted services for specialized areas and licensing fees for data analysis tools	$0	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Total	**$0**	**($2,500,000)**	**($2,500,000)**	**($2,500,000)**	**($2,500,000)**	**($2,500,000)**

After formal program evaluations are completed, and ROI is calculated, the district should be able to focus its scarce resources on a smaller number of programs and interventions that contribute to higher student achievement through cost-effective delivery models. In addition to costs reductions resulting from being able to effectively evaluate initiatives and save on obsolete or ineffective programs, an added revenue benefit of a unit of this nature is the ability to craft more effective grant applications for state and federal funding.

Chapter 4 – Budget Process and Transparency

A school system's budget is the vehicle for allocating financial resources to meet student needs. The budget should be a financial reflection of the district's goals and priorities, and should demonstrate a level of efficiency.

As a separate part of this study, Clark County School District (CCSD) requested a review of the district's budget process and the transparency of the budget document in reflecting the needs, priorities, and efficiency of the school system. In this context, the review of the CCSD budget process was based on three study questions:

1. **Budget's support of CCSD strategy and priorities.** What steps does the district perform to better ensure that the budget is used as a strategic decision-making tool and what steps could the district consider taking in the future?

2. **Budget's support of efficiency and effectiveness**. How can the district organize people, time, and money in order to achieve outcomes in a way that is less expensive, improved, and more expedient?

3. **Budget transparency**. By what mechanism, to what extent, and in what manner might the district increase budget transparency and improve reporting formats and content?

In recent years CCSD's budget process has been affected by significant reductions in state appropriations. The district has identified many opportunities for improved efficiency and related cost reductions; however, additional "cuts" or reductions unrelated to efficiency have been required to support a balanced budget. The severity of the cuts and the timing of funding information from the Nevada State Legislature have both affected CCSD's budget process. It is important that the findings and recommendations in this chapter be read in the context of a very unstable state funding scenario.

The use of CCSD's budget as a strategic decision-making tool to allocate funds for district priorities is limited by several factors:

- CCSD's budget development activities occur before the annual academic planning processes instead of after. Because of this sequencing, the budget process does not have the opportunity to strategically meet student needs.

- There are no documented or informally established links between the district's planning and budgeting processes. The budget process largely operates as an independent set of activities.

- The district's account codes are not configured to track expenditures against stated goals, targeted programs, or spending priorities.

- Most schools are locked into staffing and spending levels by prescribed funding formulas. Only the 30 Empowerment Schools have the flexibility to reallocate resources to meet identified needs.

The efficiency of the budget development process has been significantly constrained by the lack of integrated financial and human resources systems, requiring the maintenance of two different account coding structures and duplicative budget activities for development and reconciliation.

The transparency of CCSD spending and operating efficiency could also be significantly improved. While CCSD's budget document has consistently won awards for presentation and disclosure, it falls short in several areas:

- Operating budgets are aggregated at the division level, representing a combination of departments. This limits the transparency of spending on individual functions such as professional development, transportation, or facilities management.

- Budgets for individual schools are not disclosed. Most school systems provide this disclosure so differences among schools can be explained. Differences may represent an inequity in the budget formulas or may represent a strategic investment in a higher need school.

- Explanations of significant variances from prior year spending and staffing levels are not sufficient.

- The budget document does not demonstrate a level of efficiency or effectiveness for the organization as a whole or its key functions. Performance measures currently disclosed in the budget are essentially operating statistics that reflect volume of effort but not performance. Some departments track efficiency and other performance measures internally, but this effort needs to be conducted system-wide and incorporated into the budget process and resulting budget document.

This chapter contains six recommendations to improve the budget process and budget reporting at CCSD (see Table 4.1):

Table 4.1. Summary of recommendations

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
4.1 Change the sequencing of budget and planning processes and establish formal links between them.	High	2012-13	$0	No	No

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
4.2. Assign account codes to specific programs, interventions, and district priorities to demonstrate the alignment to spending and to support a Return on Investment (ROI) calculation for district initiatives.	High	2012-13	$0	No	No
4.3. Modify and expand the Empowerment School budget approach to all schools, allowing schools the flexibility to allocate resources to best meet student needs.	High	2012-13	($280,000)	No	Yes
4.4. Incorporate efficiency measurement into the budget process, so that the justification for spending levels will be more transparent.	High	2012-13	($1,250,000)	No	No
4.5. Enhance transparency and usefulness of the budget document by presenting budgets at functional and school levels, and by providing explanations of major budget and staffing variances.	High	2012-13	$0	No	No
4.6. Consider the purchase of budgeting module after upgrade of Human Resources legacy systems.	Low	2015-16	unknown	Yes	No
Total			**($1,530,000)**		

CCSD's budget process is driven by state law, Board policies, administrative regulations, and Policy Governance Executive Limitations. These documents provide requirements for budget approval and reporting to the state and establish minimum disclosure requirements for the budget document. CCSD Administrative Regulation 3110[33] defines guidelines and limitations for the development of the budget; Administrative Regulation 3130[34] provides guidance for the administration of the budget.

[33] http://www.ccsd.net/pol-reg/pdf/3110_R.pdf

[34] http://www.ccsd.net/pol-reg/pdf/3130_R.pdf

CCSD's budget process is highly formulated. Staff ratios and other formulas are used to determine allocations for staffing and financial resources. In recent years, the district has been required to fund less than formula amounts because of reductions in state appropriations. The district uses the SAP financial system to enter the adopted budget once it is completed; however the development of the budget is done primarily through hundreds of spreadsheets.

In developing staffing allocations, the district applies a very rigid accurate definition of full-time equivalent (FTE) employees that considers both the percentage of the day worked and the percentage of the year worked. For example, bus drivers work a six-hour schedule, or three-fourths of a normal work day. Most school systems consider this to be 0.75 of an FTE. AT CCSD, this amount is multiplied by the number of months the employee is needed during the year, divided by the total months in a year. This results in a lower and more accurate depiction of FTE staff. However, since most other school systems do not calculate FTEs in the same manner, comparability of CCSD staff levels is adversely affected.

Recommendation 4.1: Change the sequencing of budget and planning processes and establish formal links between them.

According to the district's budget calendar, the budget process starts in November with the development of enrollment projections. Departmental budgets are developed from January to March while school budget development begins in February for Empowerment Schools and April for traditional schools. The budget is adopted by the Board of Trustees in late May. Additional budget activities occur after May relating to the administration and funding of the budget, in addition to budget changes due to differences in projected versus actual enrollment.

With the exception of references in the budget document to district goals and objectives, there is not an established connection between the district's planning and budgeting processes. This severely limits the effectiveness of the budget as a strategic decision-making tool. Neither the budget calendar, budget procedures, nor budget formulas make reference to the planning process, district goals, or identified student needs. Alignment of budgets with district priorities and student needs is the responsibility of each budget center (department or school).

There are several planning documents developed by CCSD:

- **Strategic Plan** – The strategic plan was adopted in March 2009. This document articulates the district's vision and mission statements, establishes broad goals, and provides an assessment of district strengths and weaknesses.

- **District Improvement Plan** – Until the 2011-12 school year, this 3-year plan was required annually by the State of Nevada. The plan, completed in December 2010, identified three major priority areas for the district (student achievement, professional development, and human resources) and identified $189 million of funding targeted to these priority areas. However, the

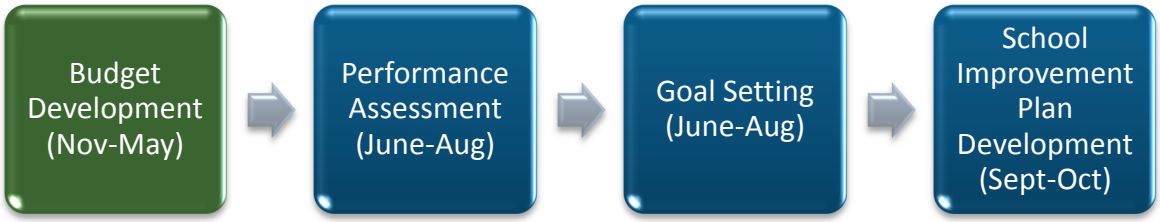
only funding sources included in the planning document were grant funds. There was no evidence of any intent to strategically allocate General Fund expenditures.

- **Area Improvement Plans** – These plans are not required by state law, and have been developed annually. These high-level documents are completed by Area Superintendents each summer and have been used by the schools to support the development of their school improvement plans.

- **School Improvement Plans** – These plans are required annually by the State of Nevada. For the first time, the 2010-11 plans cover a 3-year period instead of a 1-year plan. Unlike the District Improvement Plan, these plans will continue to be required by the state.

Figure 4.1 presents the current sequencing of the planning and General Fund budgeting processes at CCSD. While the 2010 District Improvement Plan demonstrated some connection to grant funding sources, there was no reference to the use of General Fund sources. The General Fund budget process precedes activities for the performance assessment and the development of goals, which precede the development of district and school planning documents.

Figure 4.1. Current sequencing of CCSD planning and (General Fund) budgeting activities



Source: CCSD 2010-11 District Improvement Plan; CCSD Budget Calendar; Interviews with CCSD principals and district administrators

Improvement plans are developed by schools in the fall using state-required templates. Based on input from principals, this template restricts the number of characters and number of goals that can be developed, limiting the usefulness of the tool as a planning instrument. Some schools use additional third party planning tools to develop more useful improvement plans, but this is up to the school's discretion. Budgets can be amended in the fall based on student counts, but with few exceptions they are not amended to reallocate resources to best meet identified student needs. Staffing counts generally remain fixed; materials and supplies budgets are evaluated during the summer and early fall to better meet needs through the efforts of site-based planning teams.

The impact of this approach to budgeting is best reflected in the expenditures per student. Table 4.2 shows the 2009-10 General Fund expenditures per student for traditional high schools, along with indicators of the school performance ratings. Regardless of the rating and underlying student needs represented, the district's budget process assigns virtually identical funding.

Table 4.2. Comparison of General Fund expenditures for schools with wide ranges of need

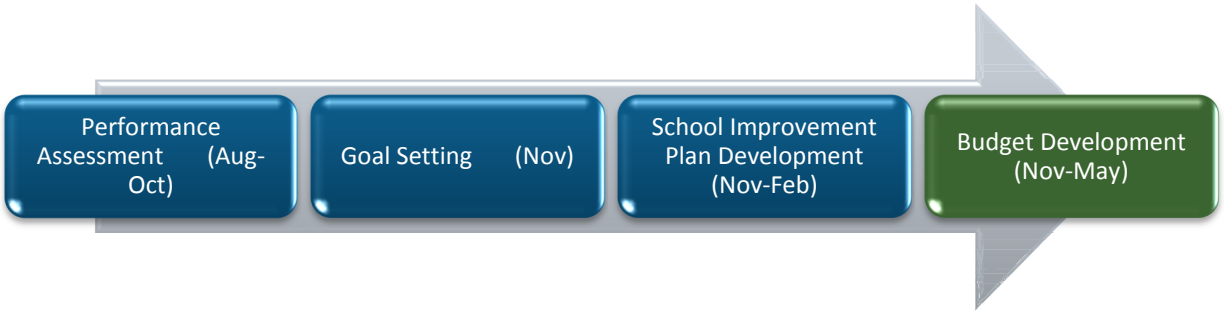
	High School A	High School B
AYP Classification	Made Adequate Yearly Progress	Did Not Make Adequate Yearly Progress
School Designation	High Achieving - Growth	In Need of Improvement (Year 5)
Enrollment	2,882	2,804
Salaries	$7,419,848	$7,503,022
Benefits	$2,343,958	$2,361,955
Utilities	$410,770	$542,304
Maintenance	$128,733	$90,976
Custodial	$50,103	$21,123
Instructional Supplies	$423,791	$512,110
Services	$69,853	$66,723
Other Expenses	$11,659	$1,536
Expenses - FY 2010	**$10,858,715**	**$11,099,748**
Per Pupil Expenditure	**$3,768**	**$3,959**

Source: CCSD Finance Department; CCSD Report Card

Title I and other grant funds may be used to support school-level needs, but as discussed separately in *Chapter 3 – Academic Programs and Services* of this report, decisions about how most of these funds are used are left up to the central office department overseeing the funding source, and may not represent the best use of funds based on identified student needs at individual schools.

For CCSD's budget to be useful in supporting strategic decision making, its development needs to occur at the end of the planning process, as depicted in Figure 4.2. This requires an earlier start date for assessment, goal setting, and planning activities.

Figure 4.2. Proposed sequencing of planning and General Fund budgeting activities



Source: Gibson Consulting Group, Inc.

Certain elements of the budget process, such as projecting enrollment, can occur before the improvement planning process is completed. Further, as interim performance assessments such as benchmark test results become available throughout the year, improvement plans and budgets can be amended as needed to meet the most currently identified needs.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Recommendation 4.2: Assign account codes to specific programs, interventions, and district priorities to demonstrate the alignment to spending and to support a Return on Investment (ROI) calculation for district initiatives.

CCSD's *Comprehensive Annual Budget Report* presents the district's four major goals or "ends"[35]:

1. Students meet state and federal guidelines as well as appropriate benchmarks for academic proficiency in all areas and all grade levels and pass the High School Proficiency Exam (HSPE).
2. Students meet state and district guidelines in art, career and technical education, physical education and lifelong wellness.
3. Students demonstrate personal and workplace skills.
4. Students demonstrate positive character skills.

While the document states that the budget process is driven by these goals, there is no proof that district spending is actually aligned with these goals. How much is the district spending to improve positive character skills? How does CCSD know that its efforts/investments have been effective? What should the district be doing differently? These questions should be answered through the budget document, clearly linking spending to district goals and identified needs. Further, lower level information regarding district priorities is needed to identify where specific investments are needed, such as in reading, literacy, or math.

To establish linkage between district priorities/programs and spending, account codes must be established to track expenditures in this manner. This level of supplemental expenditure tracking will also support the calculation of return on individual investments. The State of Nevada prescribes the account code framework for public education, but this framework allows the flexibility to track expenditures at lower levels if needed.

The district's SAP financial system has an account code element called a "statistical internal order" that could accommodate this need. Expenditures related to a specific program, intervention, or priority could be assigned an additional code for tracking. The use of a statistical internal order would not affect any

[35] http://ccsd.net/directory/budget-finance/publications/10-11_Budget/Budget_10-11_Complete.pdf

other element of the budget; it would merely provide additional information on spending that links it to a program, intervention, or priority.

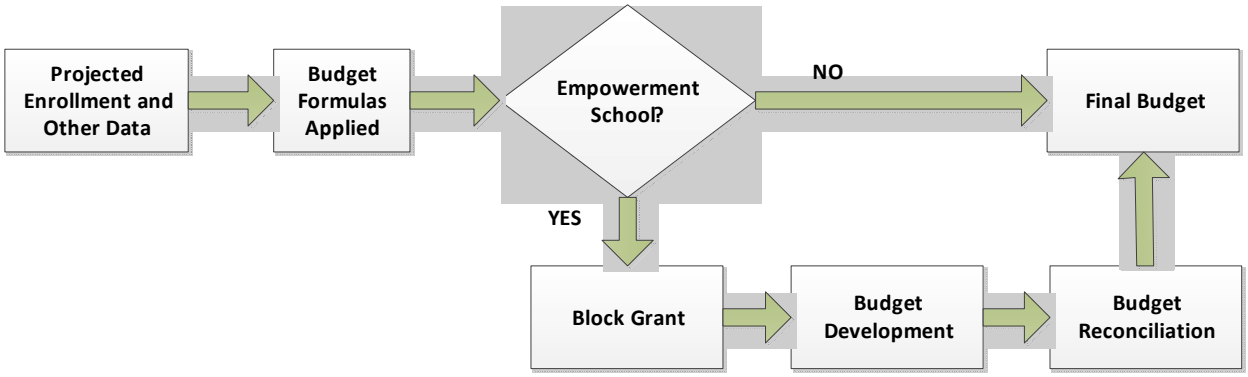
Fiscal Impact

This recommendation can be accomplished with the additional staff resources provided through Recommendation 4.3.

Recommendation 4.3: Modify and expand the Empowerment School budget approach to all schools, allowing schools the flexibility to allocate resources to best meet student needs.

In *A Look Ahead: Phase 1 Preliminary Reforms Report*[36], a planning document presented by the Superintendent to the Board of Trustees in May 2011, the expansion of Empowerment Schools was identified as a district priority. Empowerment Schools have more flexibility in decision making than traditional schools in CCSD, and must meet certain criteria to be established as an Empowerment Schools. One of the differences between Empowerment Schools and traditional schools is the budget development process. Both types of schools start with enrollment projections and the application of the same budget formulas. At this point, however, the process diverges. Figure 4.3 shows the difference between the two budgeting processes. For traditional schools, the formulas determine both staffing and financial budgets. For Empowerment Schools, the formulas prescribe an amount of funds, or block grant, that the school can allocate based on its needs.

Figure 4.3. Empowerment and traditional school budget processes



Source: Gibson Consulting Group, Inc.; Interviews with Budget Office staff

The budget process for Empowerment Schools begins in February and begins in April for traditional schools. At least one meeting with parents must be conducted to discuss the budget, and 70 percent of a school's staff must approve the budget. Traditional school and Empowerment School budgets are adjusted based on actual enrollment at the end of September.

[36] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

Once the block grant is established for Empowerment Schools, site-based planning teams engage in a budget development process to determine staffing and other resource allocations. Spreadsheet templates are provided by the budget office to the Empowerment Schools to support a consistent budgeting framework. Upon completion of the draft budget, the Empowerment Schools submit the completed template to the budget office for reconciliation with staffing data maintained by the Human Resources Division. Because the spreadsheet templates are not linked to the district's human resources system, this process is cumbersome, consumes budget office staff time, and may require several iterations of the budget with Empowerment School leadership.

The lack of integration between the district's SAP financial system and the legacy human resources system necessitates the use of average salaries instead of actual salaries for budget development at a particular Empowerment School. After the budget is finalized and entered into the system for the school year, budget variances automatically exist based on differences in actual versus the budgeted average salaries. The sum of these budget variances offset each other across all Empowerment Schools, but variances for individual Empowerment Schools have little value as they are not based on actual salary information. In an optimum situation, actual salaries would be used to developed Empowerment School budgets – as is done in traditional schools. The upgrade of the district's Human Resources/Payroll system, as discussed in *Chapter 5 – Operational Cost Efficiency Review*, is necessary for this to be accomplished.

The essence of this dual budgeting process is that traditional schools must use resources as prescribed by formula, regardless of what the schools' needs are. Empowerment Schools can allocate the block grant to meet identified needs (even though planning processes for the following year have not occurred yet). According to CCSD budget staff, most of the Empowerment School budgets end up with an allocation that is similar to what would have been prescribed for traditional schools. However, this process contributes to Empowerment Schools having more ownership in their budgets, and offers the flexibility to reallocate funds to meet needs.

Fiscal Impact

Expanding the Empowerment School budgeting approach to all CCSD schools will not require a change in policy or administrative regulation, as Empowerment Schools are currently using the recommended approach. (See related policy recommendation regarding site-based decision making in *Chapter 5 – Operational Cost Efficiency Review, Section 1 – Organization and Management*.) This change can occur without the official designation as an Empowerment School.

Additional costs will be incurred to implement this recommendation. Until the legacy human resource system is upgraded and integrated with the SAP financial systems, the current approach involving spreadsheets and reconciliations will need to be continued. It is expected that two additional budget staff (two FTEs at $70,000 each, including benefits) will be needed in the budget department to support this effort for the next two years.

Recommendation 4.3	One-Time Costs/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Two additional budget staff to process and reconcile budgets.	$0	($140,000)	($140,000)	$0	$0	$0
Total	**$0**	**($140,000)**	**($140,000)**	**$0**	**$ 0**	**$0**

Recommendation 4.4: Incorporate efficiency measurement into the budget process so that the justification for spending levels will be more transparent.

Efficiency measurement occurs within CCSD through two primary vehicles:

1. **Management Process System (MPS).** The process is an extension of the International Organization of Standardization (ISO) quality improvement process. In CCSD, this program has been voluntary and has not directly led to significant cost reductions (less than $5 million over eight years).

2. **Departmental efforts.** Several areas, such as the Facilities Division, maintain their own set of performance measures and use these to identify cost reduction opportunities. Like MPS, this is currently done voluntarily and not part of district-wide efficiency measurement system.

The district's annual budget document contains performance measures as part of each area's budget disclosure, but upon observation these measures more closely resemble operating statistics as opposed to measures of performance or efficiency. Operating statistics do not provide sufficient transparency into the adequacy or reasonableness of spending levels. Table 4.3 below provides several examples of performance measures reflected in CCSD's *Comprehensive Annual Budget Report* for fiscal year 2010-11 compared to recommended performance measures. Some of the items in the "Recommended" column are measures that are currently tracked by the department/division but not disclosed in the budget document.

Table 4.3. Examples of performance measures in CCSD budget vs. recommended measures

Area	"Performance Measures" in FY 2011 Annual Budget Report	Recommended Performance Measures
Transportation	(Number of) Buses Students Transported Daily Bus Miles Driven Number of Bus Stops Vehicles/Buses Maintained Vehicles/Buses Miles Driven	*For Regular and Special Education:* Average Number of Routes / Bus Expenditures per Mile Expenditures per Student Transported Maintenance Cost per Bus Fuel Cost per Mile Bus Miles Driven per Student Accidents per 1,000 Miles Driven Ratio of Students to Routes

Area	"Performance Measures" in FY 2011 Annual Budget Report	Recommended Performance Measures
Facilities	Number of Schools Acres of Improved Grounds Number of Maintenance Work Orders Cleaning Square Footage	Gross square feet per student Acres per Groundskeeping FTE Average # days to close work order Maintenance cost per square foot per school / site Cleaning square footage / Custodial FTE, by school / site
Human Resources	(None reported in budget)	Ratio of employees (headcount) to Human Resources FTE staff Benefits as a percentage of payroll Employee turnover
Technology	Repair Tickets Generated Telephones Supported Refreshment Computers Report Cards Printed	Ratio of Computers to Technical Support FTEs % Downtime of Network Average age of Computer Telephone Cost per Employee

Source: Gibson Consulting Group, Inc.; CCSD staff

By replacing the existing operating statistic with performance measures and showing a 5-year trend of performance for each area, readers of the district's budget get a better sense of the efficiency levels and trends behind the numbers. Performance measure targets can be used to establish budget levels for the following year.

As part of this study, a data dashboard prototype was developed as a pilot program for performance measurement in the Facilities Division. The performance measures to be applied are presented in Table 4.4.

Table 4.4. Sample performance measures

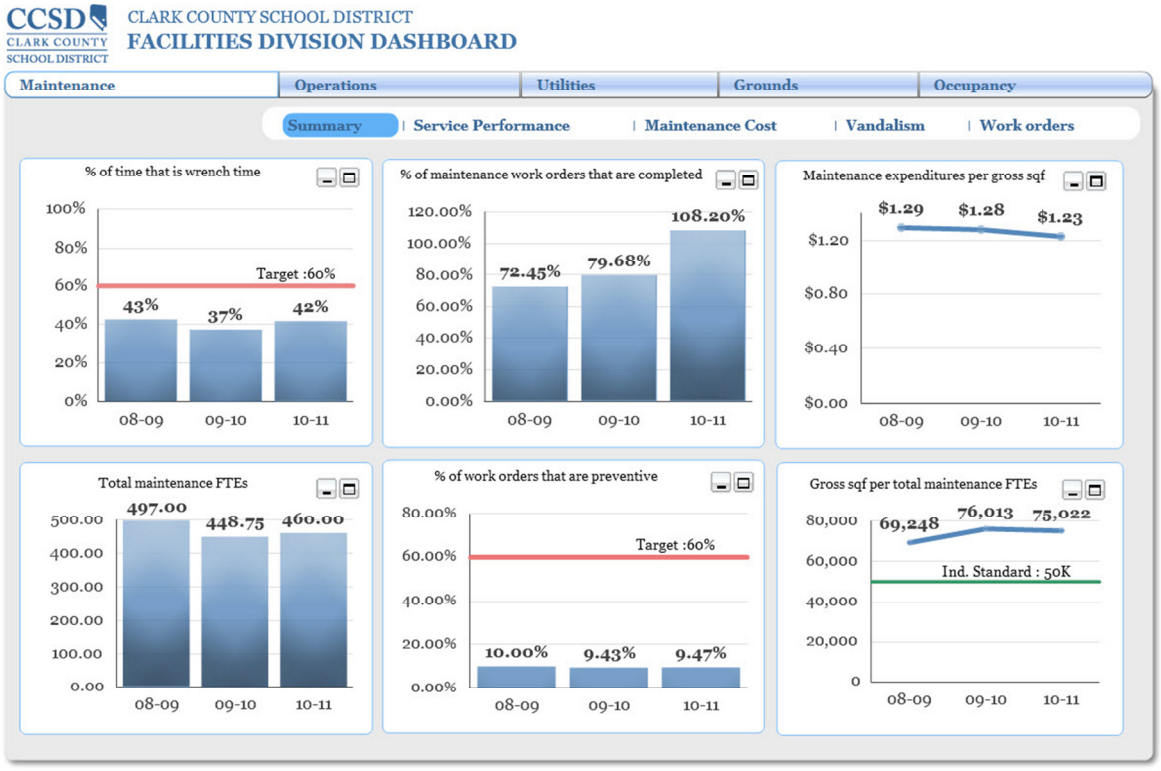
Performance Measures	Level of Detail
Staffing-related measures	
Gross square feet per total maintenance FTE	District
Gross square feet per total custodial FTE	Site
Acres per total groundskeeper FTE	District
Expenditure-related measures	
Custodial expenditures per gross square feet (including portables)	District
Grounds expenditures per acre	District
Maintenance expenditures per gross square feet (including portables)	District
Utility usage and cost-related measures	
Electricity cost per square foot	District
Kilowatts usage (electric) per square foot	District

Performance Measures	Level of Detail
Water cost per square foot	District
Water usage per square foot	District
Natural gas cost per square foot	District
Occupancy and building-related measures	
Gross square feet per student	School
Percentage of square footage that is portable	School
Maintenance Department service level-related measures	
Percentage of maintenance work orders that are completed each year	District
Percentage of "wrench time" for the maintenance department	District
Percentage of maintenance work orders that are compliant with SLA priority level (1-4) response times	District
Percentage of maintenance work orders that are preventative	District
Average completion time of maintenance work orders, by priority	District
Average response time for maintenance work orders, by priority	District
Top and bottom 20 schools in terms of maintenance costs due to vandalism (labor and materials)	School
Top and bottom 20 schools in terms of total maintenance costs per student	School
Top and bottom 20 schools in terms of total maintenance cost per square foot.	School
Input-related measures	
Total maintenance FTE trend	District
Total custodial FTE trend	District
Total grounds FTE trend	District
Total district gross square feet trend	District
Total enrollment trend	District
Customer satisfaction-related measures	
Customer satisfaction mean value for the Maintenance Department (three categories: Quality of Work, Service Provided, Attitude)	District

Source: Gibson Consulting Group, Inc.

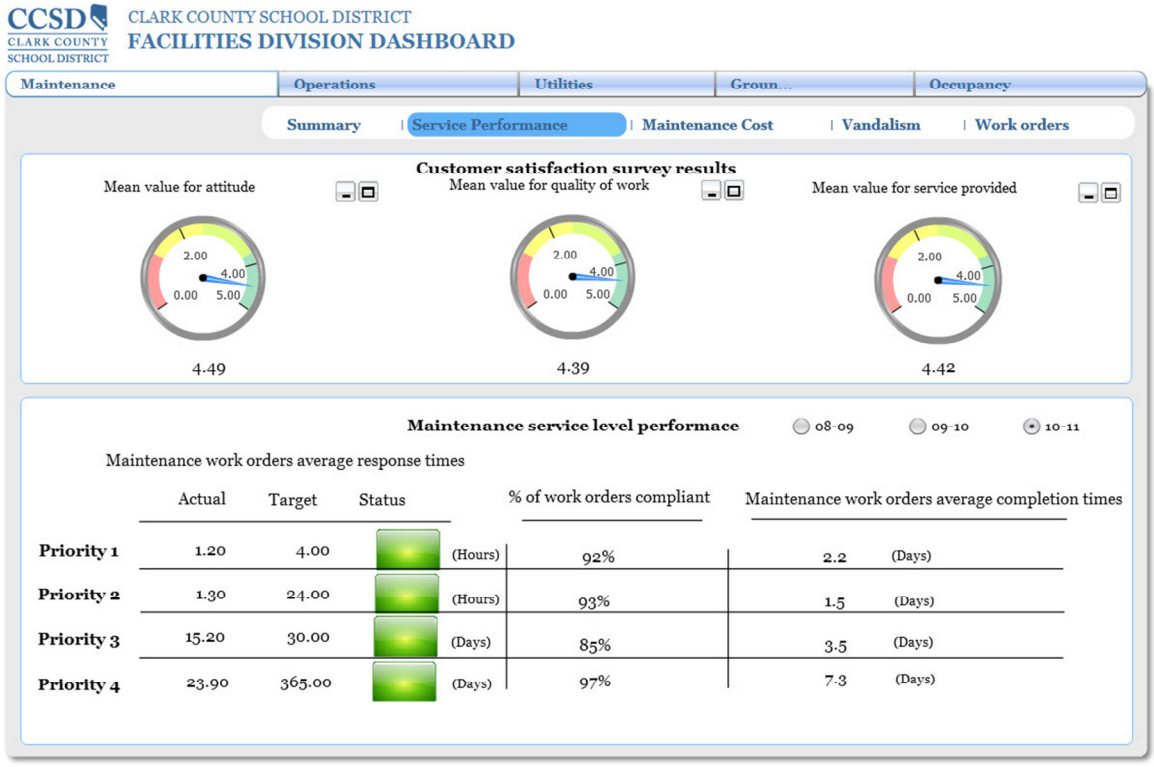
The data dashboard prototype provides the performance measures in a readily accessible format that is easy to understand. Further, the dashboard allows drilling down to lower levels of performance such as the school level. Examples of dashboard graphics for CCSD facilities management are presented in Figures 4.4 to 4.6 below. The actual data dashboard prototype has been provided separately to CCSD management to be used as a model by all operational areas.

Figure 4.4. Sample Facilities Division dashboard, maintenance summary



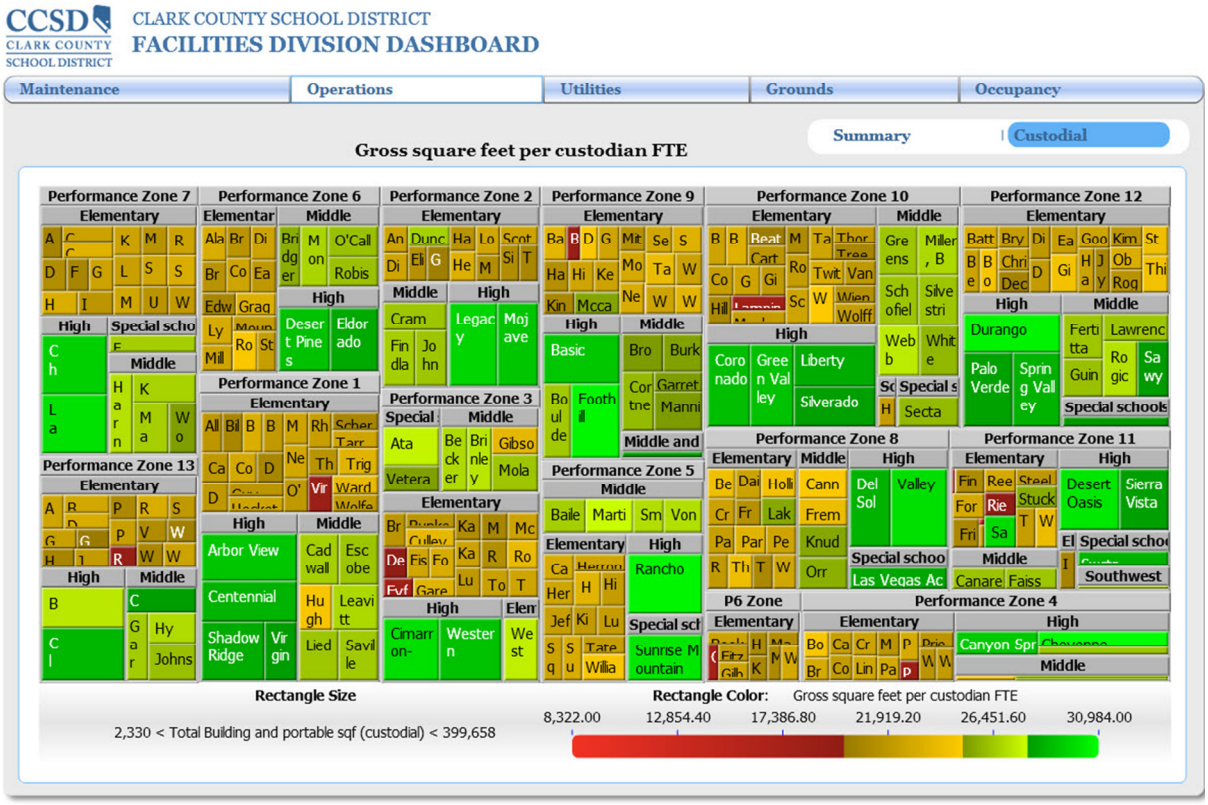
Source: Gibson Consulting Group, Inc.

Figure 4.5. Sample Facilities Division dashboard, maintenance service performance



Source: Gibson Consulting Group, Inc.

Figure 4.6. Sample Facilities Division dashboard, operations – custodial productivity



Source: Gibson Consulting Group, Inc.

The budget process and related documents should be changed to incorporate performance measurement. The following elements should be implemented:

- Develop /update 5-year performance measures by August 31st of each year
- Begin departmental performance assessment on September 1st of each year, conducting trend, peer and benchmark analysis
- Identify cost reductions and service improvement opportunities through performance analysis by November 1st of each year
- For each department/cost center, disclose, in the budget document, the top 10 performance measures that provide the most transparency into departmental spending
- Modify budget formulas to reflect results of efficiency analysis

Fiscal Impact

Implementation of this recommendation can be done through one of two options. The MPS could be re-purposed to support the required development and monitoring of efficiency measures in each area. Another alternative would be to consolidate this responsibility under Performance Management and Assessment where student performance is currently analyzed.

The fiscal impact stated in the table below assumes the need for outside assistance in the development of performance measures into an integrated system, and the expansion of the data dashboard prototype to all operational areas. The non-recurring consultant cost for development of an integrated performance management system for all operational areas, including the development of the data dashboards, is expected to be $750,000. If CCSD can dedicate its own staff to support these efforts, and if the district's data issues can be addressed (see related recommendation in *Chapter 5*, *Section 4 - Technology*), the one-time cost will be lower. The recurring annual cost of $100,000 represents the estimated salary and benefits of a senior financial analyst to support the analysis of efficiency and provide support to the operational areas in the analysis of their respective measures.

Recommendation 4.4	One-Time Costs / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Development of integrated performance measurement system.	($750,000)					
Addition of one Financial Analyst Position		($100,000)	($100,000)	($100,000)	($100,000)	($100,000)
Total	**($750,000)**	**($100,000)**	**($100,000)**	**($100,000)**	**($100,000)**	**($100,000)**

Recommendation 4.5: Enhance transparency and usefulness of the budget document by presenting budgets at functional and school levels, and by providing explanations of major budget and staffing variances.

The CCSD *Comprehensive Annual Budget Report* presents budget information at too high a level to provide adequate transparency into spending. In prior years, lower level information was provided. This was changed out of a concern of the length of the budget document. Table 4.5 presents an excerpt from the 2010-11 report for the Finance and Operations Division of CCSD.

Table 4.5. Finance and Operations Division allocations

Description	2008-09 Actuals		2009-10 Amended Final Budget		2010-11 Final Budget		2009-10 vs 2010-11	
	Staff	Amount	Staff	Amount	Staff	Amount	Amount	Percent
Admin / prof tech	46.10	$3,869,136	49.10	$4,493,670	52.00	$4,919,026	$425,356	9.5%
Support staff	1,681.43	75,252,720	1,683.98	71,831,202	1,627.08	72,035,520	204,318	0.3%
Benefits	-	31,115,733	-	34,485,299	-	33,428,965	(1,056,334)	(3.1)%
Purchased services	-	7,096,900	-	6,986,188	-	6,687,799	(298,389)	(4.3)%
Supplies	-	12,172,481	-	12,219,098	-	11,069,592	(1,149,506)	(9.4)%

Description	2008-09 Actuals		2009-10 Amended Final Budget		2010-11 Final Budget		2009-10 vs 2010-11	
	Staff	Amount	Staff	Amount	Staff	Amount	Amount	Percent
Property	-	6,695	-	-	-	-	-	-%
Other	-	204,160	-	82,574	-	66,624	(15,950)	(19.3)%
Total	**1,727.53**	**$129,717,825**	**1,733.08**	**$130,098,031**	**1,679.08**	**$128,207,526**	**$(1,890,505)**	**(1.5)%**

Source: CCSD 2010-11 *Comprehensive Annual Budget Report*

There are 11 major departments in the Finance and Operations Division:

- Budget
- Accounting
- Facilities and Bond Fund Financial Management
- Employee-Management Relations
- Demographics, Zoning and Geographic Information Systems
- Real Property Management
- Graphic Arts Center
- Purchasing and Warehousing
- Risk Management
- Transportation
- Food Services

Planned expenditures for the above areas are available in the district's budgeting detail documents, but not presented in the district's *Comprehensive Annual Budget Report*. This severely limits the transparency of district spending and also prevents the comparison of departmental spending to performance (see Recommendation 4.4 in this chapter regarding the incorporation of performance measures into the budget process).

Similar to departments, budgets for individual schools are not presented in the Comprehensive Annual Budget Report. This information is available, but must be reconstructed through internal allocations of staff costs. (A separate and different allocation process is applied by the State of Nevada in its disclosure of school budgets.) School budgets should be shown for all funds and the General Fund in the aggregate and on a per student basis. Key information on each school that affects spending should also be presented, including Adequate Yearly Progress status, student demographics, and pupil-teacher ratio to provide some context for per pupil spending variances.

CCSD's budget document does not sufficiently explain major variances in its divisional staffing or expenditure budgets. Global information regarding spending and staffing is provided in the Comprehensive Annual Budget Report's summary documents and background information, but the explanations do not appear at lower levels of the budget. Table 4.6 provides an excerpt from the 2010-11 *Comprehensive Annual Budget Report* showing significant variances in both staff FTE counts and spending over a three-year period.

Table 4.6. Instruction allocations for fiscal years 2008-09 through 2010-11

Description	2008-09 Actuals		2009-10 Amended Final Budget		2010-11 Final Budget		2009-10 vs 2010-11	
	Staff	Amount	Staff	Amount	Staff	Amount	Amount	Percent
Admin / prof tech	38.0	$4,531,529	85.0	$8,061,640	94.5	$9,467,118	$1,405,478	17.4%
Licensed	172.5	11,113,231	742.8	38,752,329	1,172.9	65,110,271	26,357,942	68.0%
Support staff	89.1	4,119,198	192.3	7,088,192	240.6	9,430,525	2,342,333	33.1%
Benefits	-	5,930,074	-	18,093,762	-	28,617,099	10,523,337	58.2%
Purchased services	-	1,416,938	-	1,821,364	-	1,214,105	(607,259)	(33.3)%
Supplies	-	3,290,936	-	5,616,371	-	5,603,251	(13,120)	(0.2)%
Property	-	-	-	15,680	-	0	(15,680)	(100.0)%
Other	-	139,450	-	79,375	-	41,375	(38,000)	(47.9)%
Total	**299.6**	**$30,541,356**	**1,020.1**	**$79,528,713**	**1,508.0**	**$119,483,744**	**$39,955,031**	**50.2%**

Source: CCSD 2010-11 *Comprehensive Annual Budget Report*

Staff FTE counts increased from 299.6 to 1,020.1 to 1,508.0 over three years and spending increased from $30.5 million to $79.5 million to $119.5 million during the same time period. These significant increases are unusual, particularly in light of the district's spending reductions. In reality, these changes primarily reflect the result of a reclassification of Empowerment School FTEs and expenditures. This information should be presented as an explanation on the same page as the budget information, providing the reader with important information regarding significant variances in staffing or spending.

Providing lower level staffing and spending information, along with the explanation of key variances, will significantly improve the transparency of the district's adopted budget. The page-length of the Comprehensive Annual Budget Report could be maintained by eliminating other less important elements of the budget document, such as detailed salary schedules and budget formulas. Some of

these schedules are required to be eligible for budget awards, but do not add as much value as the additional information recommended. CCSD should ensure that the budget first meets its own needs.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Recommendation 4.6: Consider the purchase of budgeting module after upgrade of human resources legacy systems.

Current budget development processes are inefficient, relying on extensive manual effort required to maintain a large number of spreadsheets. This is due to a variety of factors outside the control of the budget office:

- **Outdated human resources system**. The district purchased SAP software to support financial and human resource needs, but because of funding constraints, implementation of the human resources system was deferred indefinitely. The existing human resources legacy systems operate under a different account code structure that the SAP system, requiring cross-walks and reconciliations that would otherwise be unnecessary.

- **Lack of position management module**. The existing legacy systems also do not have a position management module. A position management module provides effective position control and is critical to the development of staffing budgets. Also, only licensed personnel are currently entered into the human resources system.

- **Lack of integration**. Because the human resources systems were not upgraded and integrated, financial system account codes were added to identify position level details not normally used in financial systems. This approach requires an additional level of reconciliation steps to ensure that human resources systems.

The CCSD Finance and Operations Division is considering the purchase of a "budget development" module once the human resource systems (human resources and payroll) are upgraded and integrated with the existing SAP financial system. One option being considered is a public sector budgeting module offered by SAP. If this option meets the district's functional requirements, it would provide a fully integrated system for budget development, eliminating the need for most if not all of the current spreadsheet templates used to support the current budgeting process.

Most budget development modules in the market today originated in the private sector and have not been able to meet the complex budgeting needs of school systems. As a result, most school systems – even large ones – use homegrown systems to support this process. CCSD should define its requirements for a budgeting module, and evaluate SAP as well as other options, including designs/tools used by other large school districts or the custom development of its own system.

Fiscal Impact

The fiscal impact of this requirement cannot be determined until the requirements for a budget system have been defined.

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Chapter 5 – Operational Cost Efficiency Review

Section 1 – Organization and Management

The review team evaluated Clark County School District's (CCSD) organization and financial management in three main areas: (1) performance measurement and accountability, (2) decision-making framework, and (3) the district's high-level organizational structure.

This evaluation was conducted during a period of significant change for the district. Several major positive initiatives have been undertaken since January 2011 under the district's new leadership.

- *Performance zone reorganization* – The district is migrating from schools organized by geographic area to an organization characterized by performance level. This is expected to increase the focus on student performance needs and better allocate time and resources to best meet those needs. The performance zone model has been implemented in other major school systems in the U.S., including New York City Schools and Chicago Public Schools.

- *Data analysis/data dashboards* – A student data dashboard project is underway to support more data-driven decisions for solving problems. Dashboard tools are being implemented to provide a user-friendly platform to analyze data at multiple levels such as district, area, performance zone, school, and grade level. The district is also planning to expand its use of data analysis and data dashboards to operational areas.

- *Focus on Return on Investment* – District leadership has identified Return on Investment (ROI) as a major priority for more effectively using the district's resources to meet identified needs and goals. The recommendations contained in this report should help district management improve the rate of return on investment in the areas covered by the review team.

- *Expansion of Empowerment Schools* – In *A Look Ahead, Phase 1: Preliminary Reforms Report*[37] the Superintendent communicated to the Board of Trustees in May 2011 his intent to expand the Empowerment School model, which provides schools more flexibility in making decisions and allocating resources to best meet student needs.

Table 5-1.1 presents a summary of recommendations to improve customer service and establish a decision-making framework at CCSD. Recommended changes to the district's organization structure are reflected later in this section in the new organization chart.

[37] *A Look Ahead: Phase 1 Preliminary Reforms Report – Improving Achievement in the Clark County School District* Superintendent of Schools Dwight D. Jones (May 2011)

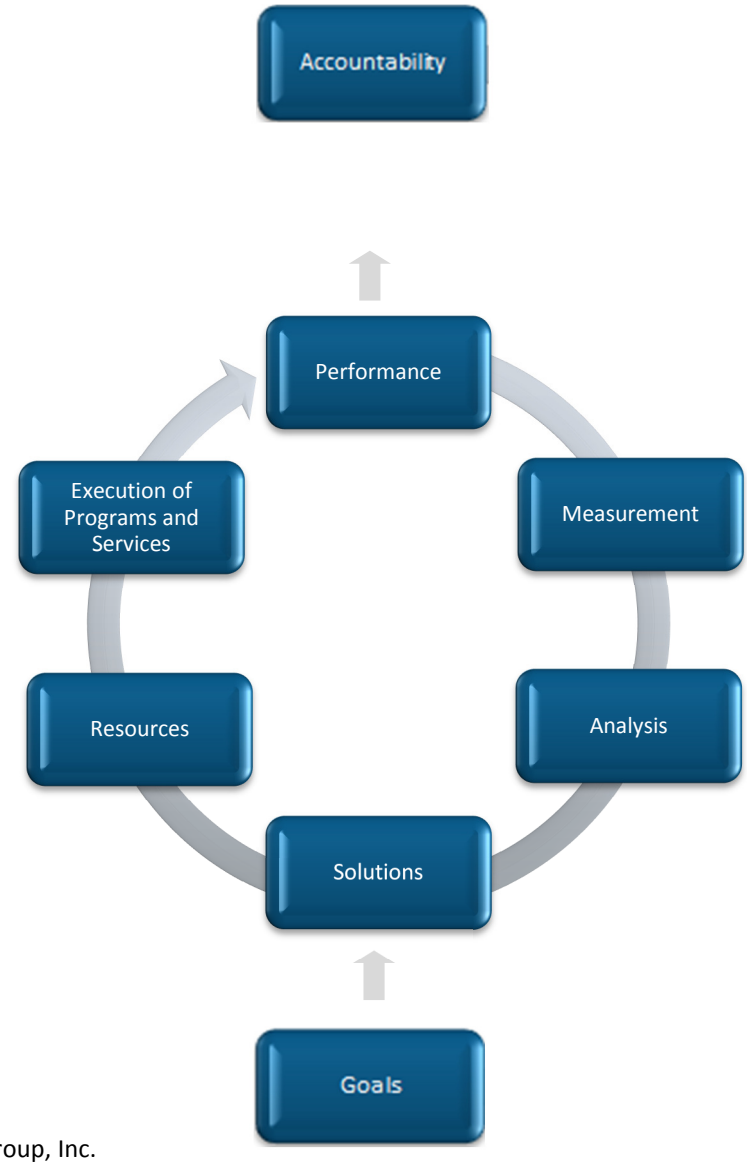
Table 5-1.1. Summary of recommendations

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
5-1.1. Improve the monitoring of customer service and satisfaction.	High	2012-13	($50,000)	No	No
5-1.2. Develop and implement district-wide decision-making framework.	High	2011-12	$0	No	Yes
Total			**($50,000)**		

Performance Measurement and Accountability

Performance measurement and accountability represent the beginning and end of a performance life cycle that is depicted in Figure 5-1.1. In this cycle, performance data are measured and analyzed, solutions and plans are developed within the context of district, school and departmental goals, resources are allocated, and the plans are executed. The last step is holding individuals accountable for performance, through formal performance evaluations. If performance levels are not achieved, individuals should be removed from the organization and replaced with an individual who is able to meet performance expectations.

Figure 5-1.1. Performance life cycle



Source: Gibson Consulting Group, Inc.

At CCSD, this performance cycle has improvement opportunities at virtually every step. Following is a discussion of the weaknesses in the current cycle and the resulting impact on performance accountability. Many of these issues are addressed in separate sections of this report. The purpose here is to demonstrate the relationship among these issues and their collective impact on the organization's ability to achieve high performance levels.

1. **There are insufficient measurements to support the analysis of performance**. On the academic side, multiple data sets support multiple analyses. CCSD is beginning to better coordinate the analysis of student achievement data, but much work remains. On the operations side, performance measurement is voluntary. Many of the "performance measures" listed in the district's budget are actually operating statistics which in and of themselves, shed little or no

light on the district's performance. Performance measures in individual departments range from insufficient (Human Resources) to excellent (Facilities). Further, the district is limited in its ability to evaluate the performance of specific programs and initiatives because data relevant to those programs (e.g., expenditure, program use, etc.) is not being captured.

2. **The tools used to measure performance are not coordinated into a single performance measurement system**. The district uses several tools to support the analysis of student achievement and operational data, but these are not coordinated (through an enterprise data model) to ensure data integrity and comparability. The lack of integrated performance measurement tools limits the quantity and effectiveness of the analysis that can be performed with the district's limited staff resources. Through this study, the review team developed a data dashboard prototype for facilities management that may be used as a model for other departments.

3. **Decisions and solutions are not always based on data**. The lack of complete, meaningful, and accessible performance information directly affects CCSD's ability to identify solutions to problems. Decisions to implement solutions to identified problems are often made in organizational silos, without adequate coordination or engagement of other stakeholders. Some initiatives are undertaken without a clear definition of what the end result is expected to be, or how such an end result aligns with the district's strategic goals and objectives.

4. **Lack of achievement of district goals**. The district's own planning documents reflect repeated patterns of performance substantially below CCSD's stated standards, and short-term planning targets do not aim for substantial gains. For example, the CCSD 2010 District Improvement Plan presents the following information on the Criteria Referenced Test (CRT) in third grade mathematics:

    - 2008-09 Baseline actual performance: 61.0 percent
    - 2009-10 Target – Adequate Growth: 62.0 percent
    - 2009-10 Target – Moderate Growth: 63.0 percent
    - 2009-10 Target – Superior Growth: 64.0 percent
    - 2009-10 Actual performance – 65.3 percent
    - District Standard: 90 percent to 100 percent

    While the district's standards are high, documented performance expectations and actual performance have been low.

5. **The budget could be more effective as a strategic decision-making tool for resource allocation**. Planning and budgeting processes are not linked primarily because most of the planning occurs after the budget process is completed, instead of before. The district's budget process could be improved to better allocate resources to meet identified needs and priorities, and be more

transparent to demonstrate efficient operations. CCSD's budgeting process is addressed separately in *Chapter 4 – Budget Process and Transparency* of this report.

6. **Execution**. A large number of initiatives and programs and the lack of coordination among them creates an environment conducive to implementation problems. Programs are often implemented in schools without adequate school leadership input, at times prompting the schools to neglect or abandon the central office program in favor of a self-selected program. CCSD is implementing a special projects position – reporting to the Superintendent – that should help improve the coordination and execution of major initiatives.

7. **Individuals are not held accountable for performance**. According to the CCSD Human Resources Division, less than 1 percent of CCSD teachers received an unsatisfactory evaluation in 2009-10. A 99 percent satisfactory rate does not seem reasonable in light of CCSD's student achievement data. In other areas, such as custodial services, cumbersome and lengthy remediation processes limit the ability to rectify personnel performance problems.

Recommendations relating to these issues are presented in separate chapters and sections of this report. Implementation of these recommendations is critical to the establishment of an effective performance management life cycle and the related needs for substantial improvements in student achievement.

Recommendation 5-1.1: Improve the monitoring of customer service and satisfaction.

During focus groups with school principals, the review team was provided with examples of customer service issues, from delays in receiving purchased items, delays in getting maintenance services, and the lack of communication on the status of orders or requests. Several departments conduct their own annual customer surveys, most of which have reflected high degrees of customer satisfaction.

As part of the district's current plans to implement an operational performance measurement system, customer service measures (in addition to efficiency measures recommended in *Chapter 4 – Budget Process and Transparency* of this report) should be included. Some data can be obtained from existing information systems, such as response times, but additional information is needed including:

- *Complaint tracking system* – Through the area offices, customer (school administrator) complaints should be logged, prioritized, and categorized by functional area in an automated tracking system. Easy-to-use online tools such as Issuetrak or Everest are available for this type of system. Customer complaints should be analyzed for recurring themes and factored into the respective performance evaluation of each operations department head.

- *Surveys* – Surveys should be conducted through the area offices and not through the operating departments (as they are currently). This will help ensure the independence of the analysis, and should yield more candid responses. To support longitudinal analysis of customer satisfaction, survey data should be consistently defined and collected over time.

Fiscal Impact

The fiscal impact assumes the purchase of a web-based complaint tracking software product, including implementation and training costs, of $50,000. The district already uses on online survey tool.

Recommendation 5-1.1.	One-Time Costs/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Purchase of web-based complaint tracking system	($50,000)	$0	$0	$0	$0	$0
Total	**($50,000)**	**$0**	**$0**	**$0**	**$0**	**$0**

Decision-Making Framework

The decision-making framework has a direct impact on the efficiency and effectiveness of any organization, including school systems. Highly centralized decision-making systems inhibit the flexibility of schools to meet student needs; highly decentralized decision-making systems may contribute to inconsistent performance, higher costs, and increased effort to manage a larger number of programs and services. The challenge for school district leadership is to find the right balance of flexibility and control so that student needs can be met in the most efficient manner.

Nevada state law[38] does not mandate site-based or school-based decision making, but provides for it. Below are the provisions relating to the designation of such schools:

> NRS **386.4154 Authority of Board of Trustees to prescribe rules relating to creation and administration of program.** The Board of Trustees of a school district may prescribe rules relating to the creation and administration of a program of school-based decision making for the public schools within the district. The rules must provide:
>
> 1. For the creation of a school council.
> 2. For the involvement of parents and other members of the community on and with the school council.
> 3. The requirements for recordkeeping by the school council.
> 4. The procedure for appealing a decision of the school council.
> 5. The procedure for a school to obtain a waiver of the requirements of regulations of the Board of Trustees or the State Board.
> 6. A method for determining the progress of a pupil in a program of school-based decision making.

[38] http://www.nvasb.org/Publications/Research_Data/nrs_386.pdf

7. A method for reporting the progress of a pupil to the pupil, the pupil's parents or guardians, the Board of Trustees and the State Board.
8. Plans for improving the schools within the district.
9. A method for allocating money to schools that have adopted a program of school-based decision making and for the administration of the budget of the school district.
10. The procedure which a school council or Board of Trustees may use to withdraw from a program of school-based decision making.

(Added to NRS by 1993, 2886; A 1995, 862; 1997, 2357)

NRS **386.4156 Authority of Board of Trustees to waive requirements of regulations for public school adopting program.** The Board of Trustees of a school district may waive the requirements of regulations of the Board of Trustees and the State Board for a public school within the district that adopts a program of school-based decision making. The Board of Trustees may not waive statutory requirements.

(Added to NRS by 1993, 2887; A 1995, 862; 1997, 2357)

NRS **386.4158 Authority of State Board of Education to waive required course of study for school council created pursuant to program.** The State Board may waive a course of study otherwise required by statute upon application of the Board of Trustees of a school district on behalf of a school council created pursuant to a program of school-based decision making.

(Added to NRS by 1993, 2887; A 1995, 862; 1997, 2357)

The delineation of decision-making authority and the respective roles of the Board of Trustees and the Superintendent are clearly reflected through Governance Policies (differentiated from district policies and administrative regulations). Within the district's organization, however, decision authority is less defined. Below are examples of Board policies that address certain types of decisions for CCSD:

Board Policy 6121(I)[39]

> The Superintendent directs that the goals contained in its System for Quality Schools shall provide the basis for the instructional program of the Clark County School District.

Administrative Regulation 6121(I.B)[40]

> Academic Services and Curriculum and Professional Development will assume responsibility for the development and revision of curriculum. The appropriate Curriculum Commission

[39] http://www.ccsd.net/pol-reg/pdf/6121_R.pdf

[40] http://www.ccsd.net/pol-reg/pdf/6121_R.pdf

> and selected administrator and/or teacher advisory groups will serve in an advisory capacity. The appropriate deputy superintendent is responsible for the curriculum of the District.

Administrative Regulation 6122(I.A)[41]

> Teachers shall develop instructional plans consistent with curricular and instructional requirements as specified by the Elements of Quality. The development of specific teaching techniques is the responsibility of the teacher and shall be consistent with Clark County School District objectives and proven principles of learning.

Administrative Regulation 6124.1(II)[42]

> The development of specific teaching techniques is the responsibility of the teacher. They are to be consistent with the district's objectives and proven principles of learning.

There are references in CCSD planning documents indicating that all schools have site-based decision-making authority. In practice, however, Empowerment Schools have much more decision-making authority than traditional schools.

Principal job descriptions provide information relating to "duties and responsibilities" and "position expectations" but not to decision-making authority. During interviews, CCSD principals indicated that they clearly understood that Empowerment School leaders have more decision-making authority, but were not familiar with any document where decision-making authority for principals was specified.

The lack of a clear and well-documented decision-making framework has adversely affected CCSD by leading to a proliferation of academic programs, professional development programs, student assessment instruments and instructional software products that are duplicative or overlapping. Specific examples of overlapping initiatives are presented in *Chapter 3 – Academic Programs and Services.*

Recommendation 5-1.2: Develop and implement a district-wide decision-making framework.

CCSD needs to better define who is responsible for making what types of decisions, and then ensure that all appropriate central office and school positions understand the decision rules. This recommendation does not require a policy change, but the decision-making framework should be incorporated as an administrative regulation.

[41] http://www.ccsd.net/pol-reg/pdf/6122_R.pdf

[42] http://www.ccsd.net/pol-reg/pdf/6124.1_R.pdf

A decision-making framework should be defined and documented for the following types of decisions:

- Curriculum / curriculum guides
- Lesson plans
- Differentiation of instruction for students
- Ability to re-allocate instructional and/or non-instructional staff to meet needs identified by school
- Assessment instruments
- Course offerings (secondary)
- School calendar
- School bell schedule
- Class size
- Purchasing decisions (by type of good or service purchased, and by value)
- Bus routes
- Cafeteria schedule
- Student fees
- Authority over staff based at school
- Work schedules for any categories of staff
- Number of work days per year for any categories of staff
- Computers / servers
- Block scheduling (secondary)
- Instructional software selection/purchase
- Instructional program selection/purchase
- Professional development program selection
- Hiring school staff
- Evaluating school staff
- Terminating school staff
- Establishing staffing needs
- Establishing non-staff budget needs
- Other school equipment (electronic whiteboards)
- Thermostat control
- Use of personal space heaters, refrigerators, microwaves
- School facility renovations
- Student discipline – code of conduct
- Student activity funds – software / processes
- Class rank determination / computation

Some of the decisions referenced above, such as the district's curriculum, need to be made centrally in order to provide consistent application and efficient operations at the schools and central office. Other decisions, such as differentiation of instruction for students, can and should be made at the school level. Documentation of the overall CCSD decision-making framework will help ensure that all principals and central office administrators understand the lines of authority for decision making. Adopting this framework as an administrative regulation will ensure its consistent use. Each major type of decision should be assigned to one of the following four categories:

1. **Site-based decisions not requiring central office approval**. These decisions can be made or approved independently by principals or their designees at the school level, and might include teaching strategies used, certain disciplinary actions, and assignments of special projects to staff.

2. **Site-based item selection from a list of district-provided options**. Examples of this might include furniture, fixtures, or computer and instructional software purchases. Schools can be given choices of computer brands and software as long as they meet minimum specifications established by the central office technology function. Buying outside the list could result in the inability of the technology function to effectively support hardware or software. Selecting from a list provides flexibility in decision making within a framework that helps ensure district-wide efficiency and effectiveness.

3. **Site-based decisions requiring central office approval**. Certain site-based decisions, such as hiring or terminating school staff, landscaping decisions, or use of a school by an outside group, should require central office approval to ensure compliance with state and federal laws and district policy.

4. **Central office decisions**. There are certain decisions that should be made by only by the central office and enforced at all schools. A single standardized curriculum and the school bell schedule are examples of decisions that should be established, or standardized, by the central office. In making these decisions, however, the central office should solicit input from schools to ensure that they make sense for the schools as well as the district.

Using the list on the previous page as a starting point, CCSD should inventory the decisions that need to be included in the definition of a decision-making framework. The process for determining decision rules should consider the following elements:

1. Does state or federal law prescribe the decision?
2. Does Board policy prescribe a decision?
3. Do administration regulations prescribe a decision?
4. Does the decision affect the flexibility schools need to meet individual student needs?
5. Who is technically capable of making the decision?
6. Does the decision affect the district's immediate or long-term cost?
7. Does the decision commit the district to future expenditures?
8. What are the risks of making the wrong decision?
    - Student or employee safety
    - Lawsuit or grievance
    - Sacrifice of necessary internal controls
    - Possible lack of alignment with district goals
    - Inconsistent services for students that move to another school in the district
9. Does the decision affect the ability of central office to provide ongoing support?

10. Could the decision have a ripple effect on other areas in the school system?

A CCSD task force should be created to develop and implement the decision-making framework. Participants on the task force should include principals, academic managers, area operations staff, and the two deputy superintendents. Separate meetings should be conducted for academic and operational areas, bringing in leaders of the respective units (Curriculum and Professional Development, Maintenance, Technology, Human Resources) as those decisions are discussed. This recommendation should be implemented during the 2011-12 school year.

Fiscal Impact

This recommendation can be accomplished with existing resources.

Organizational Analysis

CCSD's organization structure has been undergoing change during the course of this study. The most significant change involved the introduction of performance zones to provide instructional support to the schools based on each school's performance and related needs. Previously, the schools were organized under geographic areas reporting to area superintendents. The performance zone model has been successfully implemented in other large school systems in the U.S. including New York City Schools and Chicago Public Schools. This model provides better organizational alignment between resources and the unique needs of schools compared to traditional geography-based organizational support structures.

Thirteen performance zones, based on school performance and related needs, and one autonomous zone for the district's highest performing schools, are being created. The area offices will remain, but all instructional support will be provided through academic managers leading each performance zone, and each academic manager will report to the Deputy Superintendent for Academic Programs even though they will be physically located in area offices. The area organizations will be used to provide operational support and customer service to the schools, allowing performance zone staff to focus exclusively on instructional support. Area operational staff will support school operations, policy interpretations, and serve as the primary point for customer service of the central office operational areas such as facilities management, food services, purchasing, and human resources, among others. The review team endorses the performance zone model and believes that it will support better alignment of academic programs and services under a single leadership position responsible for all academic programs.

During this study, the review team analyzed other aspects of the CCSD high-level organization structure, evaluating traditional organizational concepts such as:

- *The delineation of line versus staff functions* – Line functions are responsible for the day-to-day transactions of running a school system. They include all instructional and related functions, as well as operational areas including technology, administration, and auxiliary operations. Line functions represent major departments with sizable staff and budgets. Staff functions, on the other hand, are generally more advisory or supervisory in nature, and are not involved in the

day-to-day transactional activities of running a school system. Staff functions include legal support, communications, program evaluation, special assignments and projects, and advisors to the superintendent.

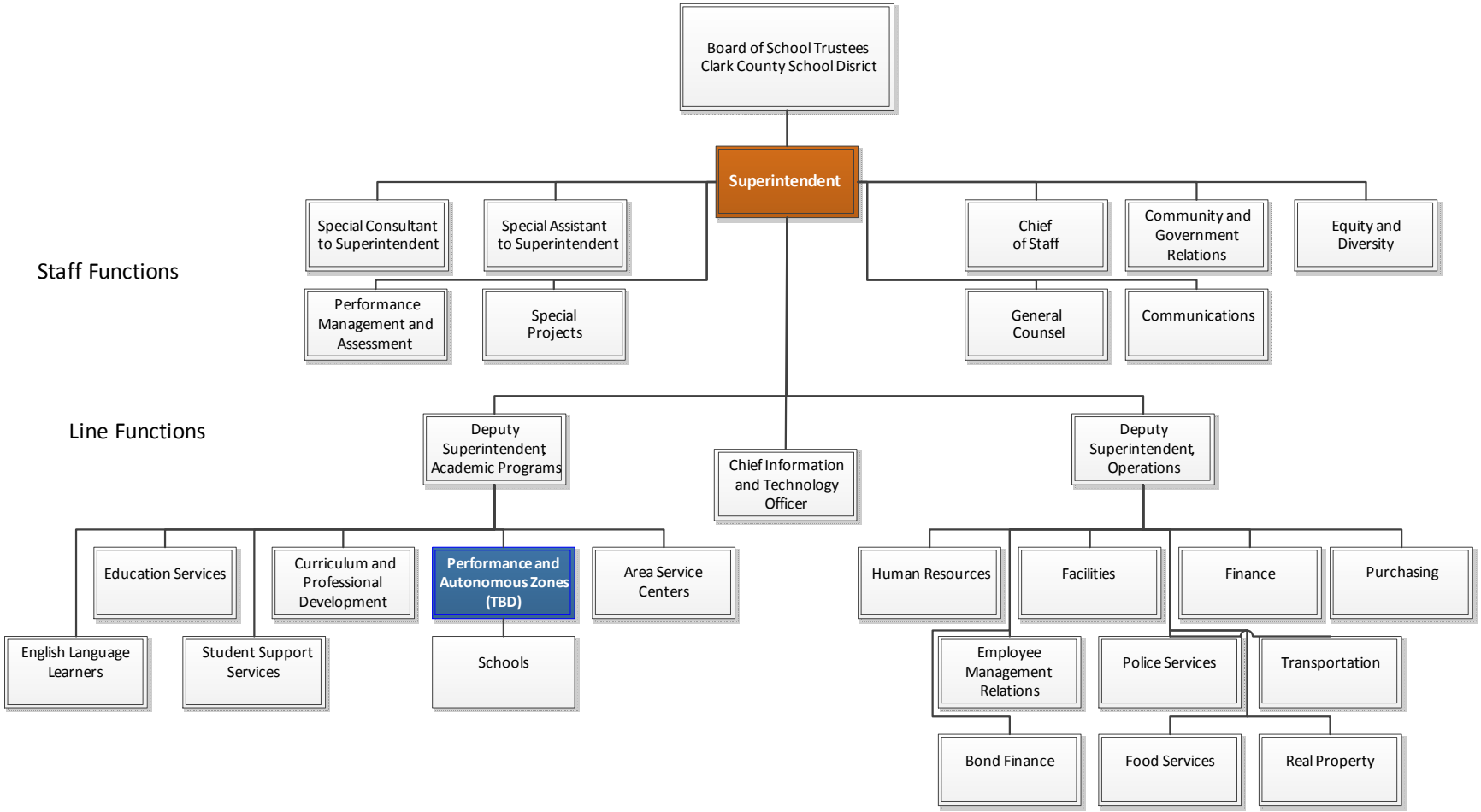
- *Logical alignment of functions* – The line functions in an organization structure should be logically aligned and grouped in a way that supports effective accountability. The grouping of functional areas should also match the technical skills of available management candidates in the marketplace.

- *Span of control* – Span of control is defined as the number of direct reports to a supervisory position. The proper span of control is influenced by the size and complexity of the reporting units. There are no set standards for span of control. At lower levels of the organization it is not uncommon to have 75 or more positions reporting to a single supervisor if those positions are similar, such as bus drivers. For senior management positions that oversee large functional areas, the span of control is smaller, there are generally between five and twelve direct reports.

The organization chart should also reflect the job description of the superintendent and the balance of internal (district operations) and external (Board of Trustee relations, community involvement) demands on the superintendent. If the demands on the superintendent are more internal, the organization is usually flatter with multiple line functions reporting to the superintendent. If the superintendent demands are more external, fewer line functions report to the position, leaving the day-to-day management of schools and operations up to a fewer number of leadership positions that oversee the functions.

Figure 5-1.2 presents the new organization structure being implemented for the 2011-12 school year. Most of the line functions of the organization report to two deputy positions, one over academic programs and one over all operational areas. There is also a separate line function for the Chief Information and Technology Officer that also reports directly to the Superintendent. The new performance zone element of the district's organization structure is highlighted in blue.

Figure 5-1.2. New CCSD organization structure



Source: CCSD, 2011

During the development of this structure the review team made several recommendations to CCSD leadership that influenced the organizational alignment:

- **Convert the Police Services Division from a staff to a line function**. The district previously had its Police Services Division as a staff function reporting directly to the Superintendent. Police Services is a line function and a major operation for the school system. This division deals with discipline and security matters on a daily basis and is an integral component of the district's line functions. This division should report directly to the Deputy Superintendent of Operations.

- **Convert the Employee-Management Relations Department from a staff function to a line function**. While a small organizational unit, this area is a line function by nature. This unit needs to be independent of the human resources function. Accordingly, this department should report directly to the Deputy Superintendent of Operations.

- **Maintain Performance Management as a staff function**. District leadership considered moving this function – now called the Assessment, Accountability, Research and School Improvement Division – under the Deputy Superintendent for Academic Programs. These functions need to be independent of the units they are evaluating. Separation of assessment and testing from academic programs will support segregation of duties to help ensure that proper controls are in place.

- **Organize information and technology functions under a Chief Information and Technology Officer reporting directly to the Superintendent.** Technology has become increasingly important to organizations and has moved up the organization chart in many school systems. Technology has transitioned over the past 20 years from functions more focused on infrastructure support and service to those that now include information management, decision support, and the development of tools to increase transparency and accountability. Organizing leadership of information and technology functions under a single direct report to the Superintendent gives appropriate weight to the strategic importance of these functions in relation to both the instructional and operational areas it supports.

In the long-term, CCSD should consider other organizational realignments, including the placement of Employment Management Relations under Human Resources and the placement of Bond Finance under Finance, as they are functional subsets of the human resource management and financial management, respectively. Other organizational recommendations relating to specific functional areas are located in the applicable section of this report.

The span of control for the Superintendent (12 direct reports) is one report higher than the previous organization structure. In the prior structure four positions were line functions while in the new structure there are three. The span of control for the Deputy Superintendent of Academic Programs under the new structure results in 21 direct reports, most of which are Performance Zone Academic Managers. This is a high span of control for a senior leadership position, but since there is some homogeneity in the performance zone position responsibilities, the demands will be less than if the

direct reports were completely different functions. The district should continue to monitor this aspect of the organization structure to ensure that the reporting load for this deputy position is not too heavy.

The span of control for the new Deputy Superintendent of Operations position (10 direct reports) is reasonable given the size and complexity of the respective functions.

Section 2 – Financial Management

This section presents a district-level analysis of CCSD's spending and staffing, and provides recommendations in three areas under financial management: finance, purchasing, and health benefits.

Financial and Staffing Analysis

The financial and staffing analysis presented on the following pages compares CCSD's 2009-10 financial results with those of its peer districts and includes an internal trend analysis over the past four years. For purposes of the financial analysis, the review team focused on CCSD's operating expenditures as these amounts relate to operating efficiency. Excluded from the analysis are non-operating expenditures and activities such as capital outlays for construction and interest on long-term debt.

The peer group analysis compares CCSD's financial operations with those of the three school systems included selected for *Chapter 2 – Student Performance Analysis* of this report: Broward County Public Schools (BCPS) and Miami-Dade County Public Schools (M-DCPS) in Florida, and the Houston Independent School District (HISD) in Texas. Each of these districts is comparable to CCSD in size and student demographics, and each district has achieved higher levels of academic performance than CCSD.

Based on the financial peer comparisons and trend analyses, the following were noted with respect to CCSD's cost structure:

- CCSD had lower staffing levels – teachers and non-teachers – relative to its peers. This contributes to CCSD having overall lower overall costs per-pupil than the peer group.
- CCSD instruction-related expenditures per pupil were lower than its peers.
- CCSD spent less, based on a percentage of total expenditures, from its General Fund than its peers. This is due to the fact that CCSD receives less support per student from state and local sources (state funding, tax revenues, etc.) than its peers.
- Compared to its peers, CCSD had the lowest per-pupil expenditures in the following categories: instruction, instructional leadership, and plant maintenance and operations.
- Over the past four years, CCSD per-pupil expenditures have risen at an average pace of less than 3 percent, and non-instructional expenditures per pupil have remained flat for the past three years.

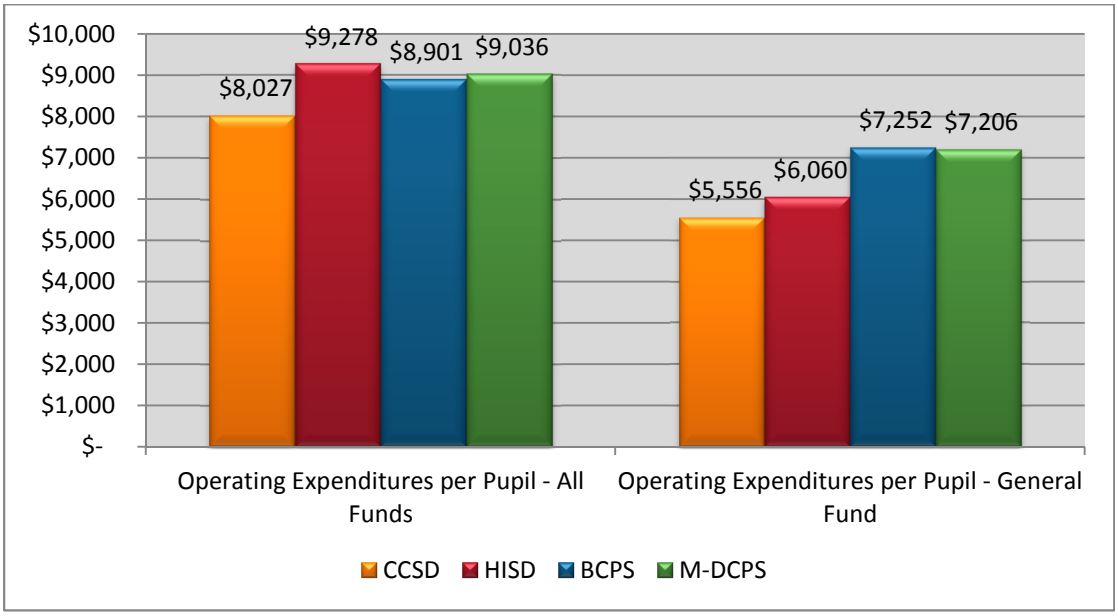
The analysis presented in this section focuses on operational efficiency, primarily measured by operating expenditures per pupil. Per-pupil amounts were analyzed to support comparisons to different sized peer school systems and to analyze spending trends over time within CCSD as enrollment has changed.

Financial and staffing data for the peer district analyses were obtained for 2009-10, the most recent year for which published financial information was available

Peer District Comparison

CCSD spent less per student than its peers, and this is true with respect to all funding sources and the district's General Fund. Figure 5-2.1 shows operating expenditures per student for CCSD and its peers for the General Fund and All Funds combined.

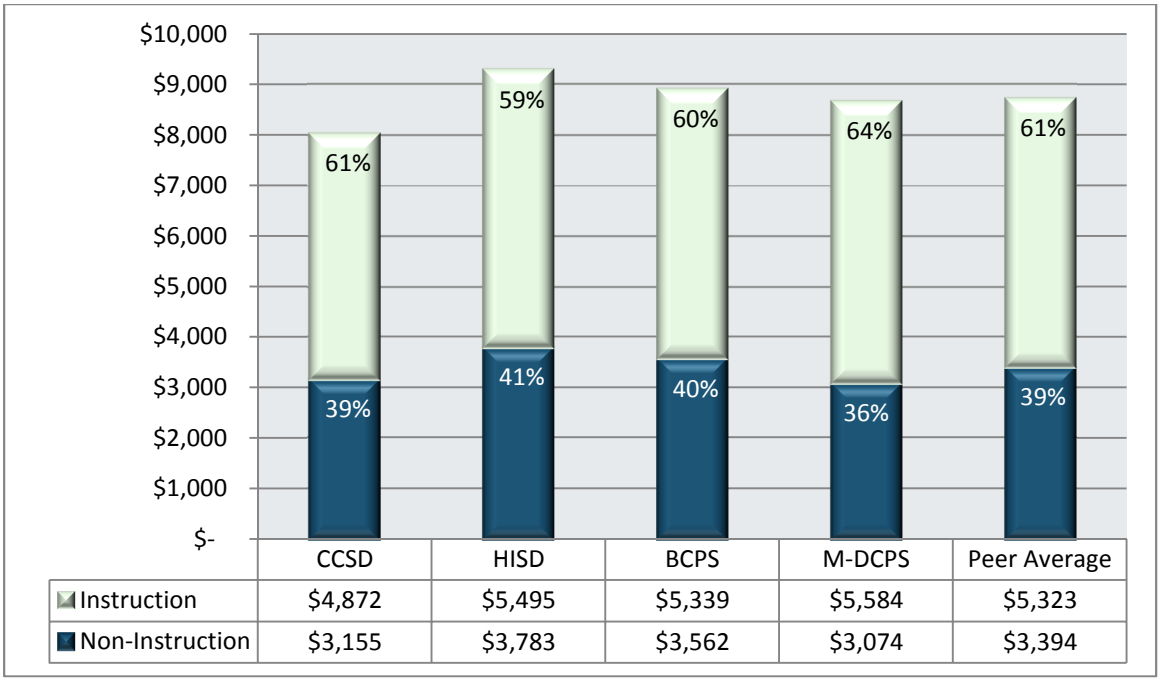
Figure 5-2.1. Peer comparison of operating expenditures per student, 2009-10



Source: CCSD 2009-10 Actual Expenditures by Program; Florida Department of Education 2009-10 Annual Financial Report and Comprehensive Annual Financial Report; Texas Education Agency 2009-10 PEIMS District Financial Actual Report.

As shown in Figure 5-2.2**,** CCSD had the second-lowest percentage of expenditures for instruction (61 percent). CCSD's rate of expenditure for instruction is comparable to the average of all peers.

Figure 5-2.2. Percentage of expenditures for instruction, General and all funds, 2010



	CCSD	HISD	BCPS	M-DCPS	Peer Average
Instruction	$4,872	$5,495	$5,339	$5,584	$5,323
Non-Instruction	$3,155	$3,783	$3,562	$3,074	$3,394

Source: CCSD 2009-10 Actual Expenditures by Program; Florida Department of Education 2009-10 Annual Financial Report and Comprehensive Annual Financial Report; Texas Education Agency 2009-10 PEIMS District Financial Actual Report.

Table 5-2.1 presents expenditures per student by functional category. The green shaded cells indicate where CCSD was the lowest among its peers. The red shaded cells indicate where CCSD was highest among its peers in per student spending. CCSD was the lowest in overall spending as well as in the following categories: instruction, instructional leadership, food services, plant maintenance and operations, and community services.

Differences in instructional leadership and community service appear to be due to different classification schemas than the three comparison districts. CCSD had the highest per-pupil expenditures in one functional category, student support services.

Table 5-2.1. Operating expenditures per student, all funds, 2009-10

Operating Expenditures per Student - *All Funds*				
Function	**CCSD**	**HISD**	**BCPS**	**M-DCPS**
Total Operating Expenditures	$8,027	$9,278	$8,901	$9,036
Instruction	$4,872	$5,495	$5,339	$5,584
Instructional-related services	$313	$430	$297	$315
Instructional leadership	$69	$135	$200	$174

Operating Expenditures per Student - *All Funds*				
School leadership	$547	$647	$505	$476
Support services - student	$464	$414	$433	$410
Student transportation	$337	$216	$380	$242
Food services	$271	$558	$326	$394
Extracurricular activities	$37	$83	$0	$0
Central administration	$239	$167	$357	$278
Plant maintenance and operations	$735	$886	$944	$1,066
Security and monitoring services	$101	$103	$0	$0
Data processing services	$42	$122	$29	$3
Community Services	$0	$22	$91	$94

Source: CCSD 2009-10 Actual Expenditures by Program; Florida Department of Education 2009-10 Annual Financial Report and Comprehensive Annual Financial Report; Texas Education Agency 2009-10 PEIMS District Financial Actual Report.

Security and monitoring services for the Florida districts (BCPS, M-DCPS) are included in the plant maintenance and operations amounts. If CCSD and HISD amounts for plant maintenance and operations and security and monitoring services are combined, CCSD still has the lowest expenditures per pupil at $836. CCSD did not begin tracking community services expenditures separately until 2010-11.

Table 5-2.2 shows the same information but for the General Fund only. Cells for which CCSD expended the lowest of all four districts are highlighted in green. CCSD incurred the lowest expenditures per pupil in six functional areas, and did not have the highest amount in any area. CCSD was the lowest in the same areas as above, and spent less in General Fund expenditures per pupil than its peer districts in transportation.

Table 5-2.2. Operating expenditures per student, General Fund, 2010

Operating Expenditures per Student – *General Fund*				
Function	**CCSD**	**HISD**	**BCPS**	**M-DCPS**
Total Operating Expenditures	$5,555	$7,209	$7,253	$7,205
Instruction	$3,264	$4,504	$4,444	$4,782
Instructional-related services	$178	$182	$198	$117
Instructional leadership	$46	$91	$100	$57
School leadership	$542	$630	$490	$469

Operating Expenditures per Student – *General Fund*				
Support services - student	$296	$265	$385	$168
Student transportation	$165	$206	$281	$229
Food services	$0	$54	$0	$0
Extracurricular activities	$37	$71	$0	$0
Central administration	$153	$144	$332	$227
Plant maintenance and operations	$734	$848	$931	$1,064
Security and monitoring services	$100	$99	$0	$0
Data processing services	$42	$105	$29	$3
Community Services	$0	$10	$63	$89

Source: CCSD 2009-10 Actual Expenditures by Program; Florida Department of Education 2009-10 Annual Financial Report and Comprehensive Annual Financial Report; Texas Education Agency 2009-10 PEIMS District Financial Actual Report.

CCSD's lower cost per pupil was driven primarily by lower staffing. Table 5-2.3 provides comparisons of teaching and non-teaching staff ratios among CCSD and its peer districts. In general, the lower the staff counts, the higher the ratio of students to staff. CCSD had the highest pupil-teacher ratio, indicating that the district had on average 20 percent fewer teachers relative to its student population.

Table 5-2.3. Peer comparison of staff ratios, 2009-10

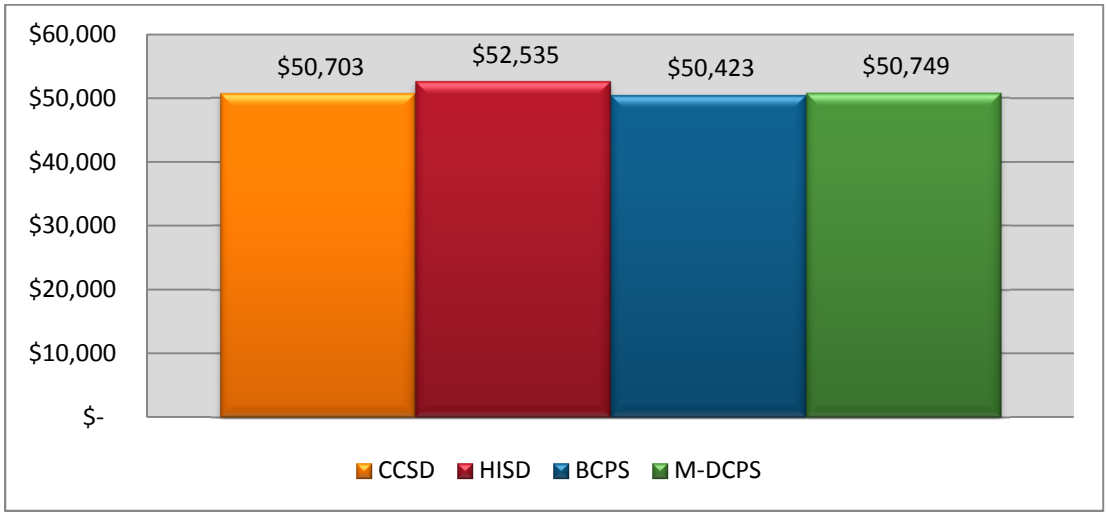
2010 Pupil-Staff Ratios				
	CCSD	**HISD**	**BCPS**	**M-DCPS**
Pupil-Teacher Ratio	20.0	16.9	16.9	16.0
Pupil-Non-Teaching Staff Ratio	30.1	15.8	23.9	21.5

Source: U.S. Department of Education National Center for Education Statistics, Common Core of Data (CCD); 2010-11 Budget Reports for Clark County; Texas Education Agency 2009-10 Academic Excellence Indicator System; Florida Department of Education "Membership in Florida Public Schools" 2010-11; "Staff in Florida's Public Schools, 2010-11."

CCSD's ratio of pupils to non-teachers is significantly higher than the peer districts. However, it is important to note that CCSD calculates full-time equivalents (FTEs) for non-instructional staff differently from its peers. CCSD factors in the percentage of the day worked, but also the percentage of the year. Consequently, an 8-hour non-instructional employee that works 9 months of the year is considered a 0.75 FTE in CCSD, but a 1.0 FTE in Texas and Florida. If CCSD were to define its FTEs as Texas and Florida, its FTE counts would have been substantially higher and its ratio of pupils to non-teaching staff would have been substantially lower.

Differences in teacher salaries did not account for differences in overall cost, as CCSD's teacher salaries were similar to its peers. Figure 5-2.3 presents a comparative analysis of average teacher salaries for 2009-10.

Figure 5-2.3. Average teacher salaries, 2009-10



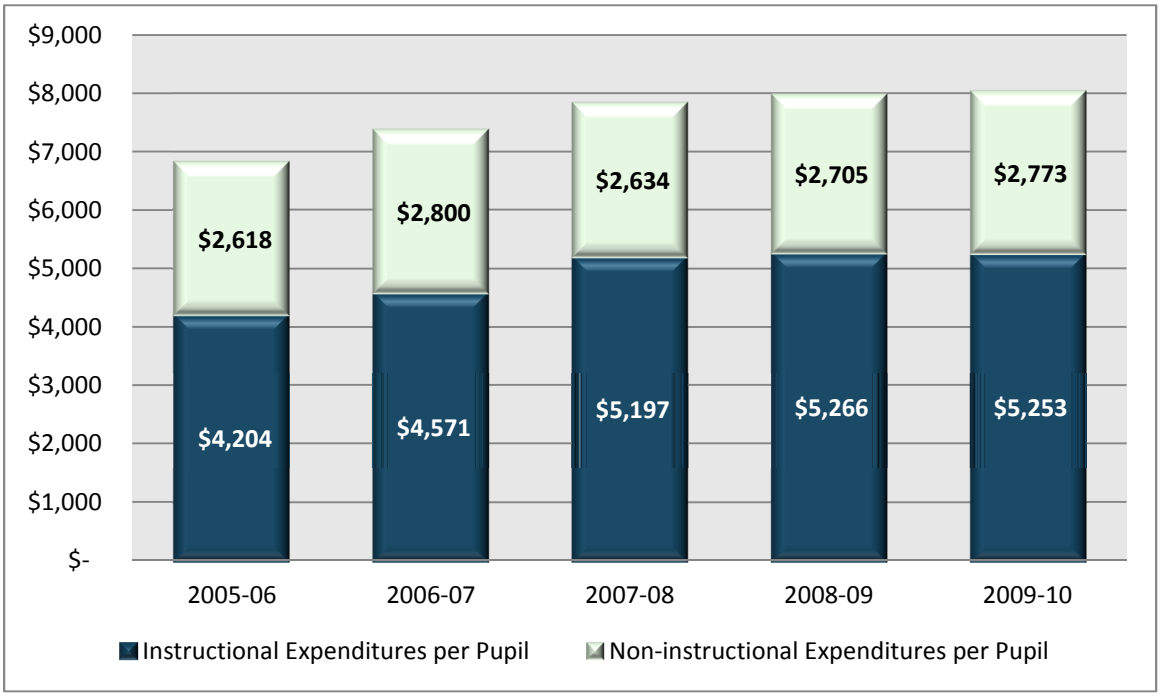
Source: CCSD finance office; Texas Education Agency 2009-10 Academic Excellence Indicator System; Florida Department of Education "Staff in Florida's Public Schools, 2010-11."

Trend Analysis

A trend analysis of CCSD expenditures was performed to identify fluctuations in spending patterns. All figures used in this analysis are those reported by CCSD to the Nevada Department of Education through the InSite system for each fiscal year reported here.

From 2005-06 to 2009-10, CCSD's operating expenditures per pupil have increased from $6,822 to $8,026, or an average of 4.4 percent per year. During this time enrollment grew from 291,510 to 309,476, but enrollment and spending has been relatively flat for the past three years. Figure 5-2.5 shows instructional and non-instructional expenditures per pupil for the past five years.

Figure 5-2.5. CCSD per-pupil expenditure, 2005-06 to 2009-10



Sources: CCSD InSite reports for 2005-06 to 2009-10

Table 5-2.4 shows per-pupil expenditures by instructional area and by non-instructional function for 2005-06 through 2009-10. Expenditures per pupil for instruction have increased, based on an annual average, more than any other area (The 23.4 percent increase in central administration represents a reclassification from Instructional Leadership in 2010). In non-instructional areas, expenditures per pupil overall have increased at an average rate of 1.5 percent per year.

Table 5-2.4. CCSD operating expenditures per pupil, all funds, 2005-06 to 2009-10

Expenditure Category	2005-06	2006-07	2007-08	2008-09	2009-10	Average Annual % Change
Enrollment	291,510	302,763	308,783	311,240	309,476	**1.54%**
Total Operating Expenditures/Student	$6,822	$7,371	$7,831	$7,971	$8,026	**4.41%**
Instruction	$3,697	$3,999	$4,633	$4,808	$4,872	7.95%
Instructional-related services	$291	$349	$429	$334	$313	1.87%
Instructional Leadership	$216	$223	$135	$124	$68	-17.05%
Total Instructional Related Expenditures/Student	**$4,204**	**$4,571**	**$5,197**	**$5,266**	**$5,253**	**6.24%**
School administration	$511	$538	$564	$593	$547	1.76%
Student support services	$653	$713	$322	$367	$464	-7.25%

Expenditure Category	2005-06	2006-07	2007-08	2008-09	2009-10	Average Annual % Change
Student transportation	$338	$324	$333	$368	$337	-0.07%
Food services	$248	$277	$304	$273	$271	2.26%
Extracurricular activities	$32	$37	$34	$31	$37	3.92%
Central administration	$123	$154	$173	$184	$239	23.40%
Plant maintenance and operations	$594	$641	$699	$732	$735	5.95%
Security and monitoring services	$81	$87	$113	$105	$101	6.12%
Data processing services	$38	$29	$92	$52	$42	3.08%
Non-instructional Expenditures/Student	**$2,618**	**$2,800**	**$2,634**	**$2,705**	**$2,773**	**1.5%**

Source: CCSD InSite reports for 2005-06 to 2009-10

Selected CCSD pupil-to-staff ratios are presented Table 5-2.5. Reductions in ratios reflect increases in staffing levels relative to the student population. The decrease in the Central Services ratio in 2009-10 (offset by an increase in General Administration) is due to the reclassification described above under Central Administration expenditures. The significant increase (reduction in staff) in the Land and Building Acquisition ratio reflects the winding down of the district's building program.

Table 5-2.5. Pupil-to-non-instructional staff ratios, 2007-08 to 2010-11

	2007-08	2008-09	2009-10	2010-11
Administrative and Instructional Support Staff				
Student support	237.5	235.6	230.9	232.3
Instructional staff support	278.1	280.3	297.1	298.5
General administration	695.7	732.4	1,659.0	1,630.3
School administration	132.0	134.9	138.1	142.7
Central services	491.8	519.6	375.8	364.0
Total Administrative and Instructional Support Staff	**53.0**	**54.0**	**54.9**	**55.5**
Operating, Transportation, and Other Service Staff				
Operating and maintenance services	119.1	119.1	120.0	115.7
Student transportation	202.9	207.7	222.3	215.1
Food services	525.9	567.3	677.6	675.3

	2007-08	2008-09	2009-10	2010-11
Land and building acquisition	810.6	876.3	1,348.7	2,262.0
Total Operating, Transportation and Other Service Staff	**60.7**	**62.1**	**66.4**	**65.7**

Source: 2010-11 CCSD Budget

Expenditures and staff levels for specific educational and operational areas are addressed in separate chapters and sections in this report.

Financial Management and Purchasing Operations

Financial management and purchasing operations at CCSD fall under the Operations Support Unit under the direction of the chief financial officer (CFO). In addition to finance and purchasing, the Operations Support Unit includes the functions of facilities, technology, Vegas Public Broadcasting System, transportation, food services, employee relations, risk management, facilities and bond financial fund management, demographics and zoning, and real property management.

The Deputy CFO who oversees the finance operations for the district supervises a team of 78 employees in the functions of general accounting, budget, payroll, accounts payable, cash management, purchasing cards and fixed assets, and school banking. In addition to the finance staff, the district maintains a separate grants function that falls under the purview of the Student Support Services Division of the Instruction Unit. The grants function is staffed with 17 grant coordinators and nine budget/finance coordinators.

Due to a major upgrade of finance and purchasing information systems, the finance and purchasing functions are much more efficient than they were in the past. CCSD's enterprise resource planning (ERP) system has streamlined business processes and improved the end-user functionality of activities such as:

- Online matching of invoices, purchase orders and receiving documents to support efficient processing and payment of invoices.
- Account code defaults that simplify the coding and ordering process by prompting end users.
- User-friendly shopping carts for purchasing items.
- Customized reports that help track expenditures and inventory more effectively.

Like other CCSD departments, finance and purchasing have lost positions in the last few years, but because of better information systems, they have been able to re-engineer business processes to reduce the related work demands.

While the new ERP system has resulted in a number of substantial operational improvements, the review team found other opportunities for improvement in grants management, warehousing, purchasing, and risk management.

Table 5-2.6 presents a summary of the recommendations made in this section as well as the projected five-year fiscal impact of each recommendation.

Table 5-2.6. Summary of recommendations

Recommendation Summary	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
5-2.1. Re-assign the fiscal component of the Grants Department to report to the Deputy Chief Financial Officer and improve controls over grant fund spending.	High	2012-13	$0	No	No
5-2.2. Reduce the amount of non-standard purchases in the district and implement spending controls.	High	2012-13	$9,750,000	No	Yes
5-2.3. Create a position of Technology Buyer to assist with technology purchasing in the district.	High	2012-13	($408,000)	No	Yes
5-2.4. Negotiate language in collective bargaining agreements to allow CCSD access to health benefits plan performance information	Medium	2012-13	$0	No	Yes
5-2.5. Periodically conduct audits to verify eligibility of health benefits plan dependents	High	2012-13	Unknown	No	Yes
Total			**$9,342,000**		

Finance Management

Recommendation 5-2.1: Re-assign the fiscal component of the Grants Department to report to the Deputy Chief Financial Officer and improve controls over federal grant fund spending.

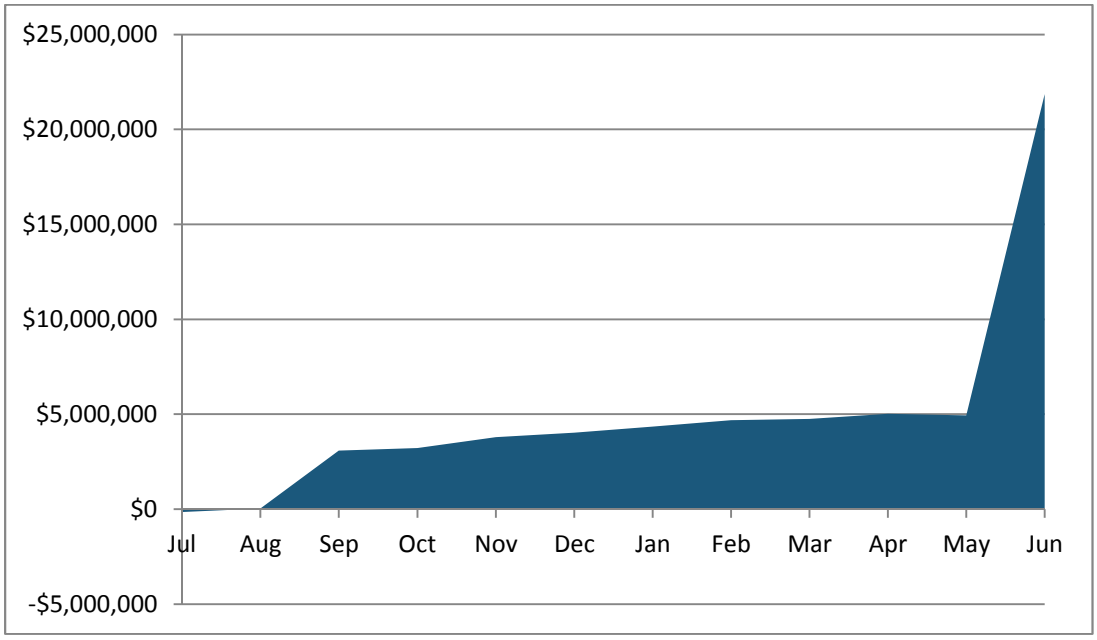
The district currently has $300 million in federal grant funds that are not under the purview of the Deputy CFO. Finance and grants account for some expenditures differently, and CCSD conveyed to the review team that school-based staff receive direction regarding accounting and procurement processes from grants that are different from Finance. Due to a lack of controls over budgetary and spending practices in the Grants Department, the district is at risk of losing funding. In FY 2010-11, for instance, the district had almost $76 million in Title I funding which is solely managed by the Title I Department. At year-end, $59 million of these funds were expended or planned to be expended, leaving $16 million of available funds unspent.

Districts are allowed to carryover some of their unexpended funding in accordance with federal guidelines, which in the case of Title I funding is 15 percent, but large carryovers raise the question as to whether a district is using the funds strategically to meet identified needs, and places the district at risk

of losing future funding due to non-compliance. CCSD is currently in the position of having to respond to the federal government as to why it did not meet the 85 percent spending threshold for the year, and justifying why it should continue to be funded at current levels when it did not meet spending goals in the prior grant year.

Figure 5-2.6 shows the spending pattern by month for fiscal year (FY) 2010-11 for Title I (non-stimulus) funds. As this graph shows, a significant majority of the district's expenditures occurred during the last month of the fiscal year. While some of the end of year expenditures relate to the subsequent school year, the pattern indicates that Title I expenditures are not well planned and may not be effectively supporting strategic needs of the district.

Figure 5-2.6. CCSD's expenditures of Title I funds by month for FY 2010-11



Source: FY 2010-11Title I expenditure report, CCSD Finance and Operations Division

Placing the grants fiscal function under the supervision of the Deputy CFO will help to promote a more cohesive way of conducting the district's business, will make procedures and practices more consistent, and will help to provide a higher level of accountability of the district's financial management. Upon adoption of the annual budget, each major grant coordinator should develop monthly expenditure budgets based on identified district and school needs. This will support the monitoring of grant spending throughout the year.

Fiscal Impact

While there is no direct fiscal impact associated with this recommendation, this re-organization will help the district to better manage its grant funding and will improve internal controls over grant expenditures.

Purchasing

The director of Purchasing and Warehousing has a staff of 105 employees in purchasing, contract management, mail room services, and warehousing. The district also maintains a graphic arts function falling under the Purchasing and Warehousing Department which is operated as an internal service fund. That is, the departments and schools using the services of Graphic Arts are charged for those services. The Purchasing and Warehousing Department is aggressive in seeking the best prices for the district through vendor negotiations, participating in purchasing cooperatives, and in procuring goods and services through joinder agreements (joining on other governmental agencies' bids). As a part of the analysis, the review team conducted price comparisons on several items and found that CCSD's Purchasing and Warehousing Department is using its purchasing power to obtain highly competitive pricing.

One of the most successful procurement processes implemented in the district is the just-in-time (JIT) purchasing and inventory control system. Under a JIT process, central warehouses no longer maintain large stocks of routine supplies. Instead, each school or department orders supplies when they are needed, and local vendors deliver the goods and supplies directly to the school or department placing the order, most often by the next business day following order submission. This process has resulted in substantial cost reductions to the district in comparison to its old central receiving and distribution functions, which required central ordering, delivery of all goods and supplies to a central warehouse, stocking of those supplies, and distribution/delivery of the supplies to end users by way of CCSD vehicles and personnel. The only bulk item currently stocked by the district in a central warehouse is specialty paper; regular white copier paper is delivered to departments and schools when needed. However, the district is searching for a vendor willing to provide bulk prices on its specialty paper, yet deliver to the various schools and departmental locations on an as-needed basis.

The Purchasing and Warehousing Department has also reduced the costs of CCSD's mail operations by streamlining the process, reducing previous daily service to twice weekly service, and redesigning routes to use fewer vehicle miles.

The district has a value-added contracting process. All contracts are reviewed and negotiated by Purchasing and Warehousing Department staff, and the ERP system is used to track and maintain contract information. The department has placed automated controls into the ERP system that prevents the completion of a purchase order if it is not associated with a board-approved item.

As part of this study, a sample of CCSD's major contracts was reviewed to determine whether proper procedures were followed when the contracts were evaluated and executed. Out of a total of 60 contracts over $1 million in FY 2010-11, 11 were selected for testing. Table 5-2.7 shows that all the contracts reviewed were properly bid, evaluated, and approved.

Testing procedures included a review of the bid documents to ensure that all facets of the bidding processes were in place, including whether the Request for Proposal, bid, or request for quote was advertised as required by Nevada procurement statutes and whether bids were received and evaluated in accordance with bidding statues and district policy.

In addition, the evaluation or bid tally sheets were reviewed to determine whether vendor responses were accurately and fairly evaluated. Finally, documentation related to Board of Trustee approval for the items selected in the sample was reviewed.

Table 5-2.7. Results of contract testing – contracts over $1 million

Contract Description	Total Contract Amount	Contract Start Date	Contract End Date	Proper Notice?	Properly Bid?	Properly Evaluated?	Properly Approved?
Sign Language Interpreters-Preston Bass	$2,019,272	5/28/2010	5/27/2012	✓	✓	✓	✓
Carpet Supplies	$5,003,460	7/29/2007	8/13/2010	✓	✓	✓	✓
Refrigerator Roll-In	$1,607,087	7/30/2010	7/30/2011	✓	✓	✓	✓
Athletic Training Services	$2,057,400	5/28/2010	5/27/2012	✓	✓	✓	✓
Maintenance – Flooring	$3,531,061	6/25/2007	9/26/2011	✓	✓	✓	✓
Interpreting Service-American Sign Language	$3,989,920	5/28/2010	5/27/2012	✓	✓	✓	✓
Carpet	$1,560,000	1/3/2011	1/13/2012	✓	✓	✓	✓
Monochrome Printers	$11,750,000	12/9/2010	12/8/2011	✓	✓	✓	✓
Architectural Design Services	$1,424,480	2/14/2011	6/30/2012	✓	✓	✓	✓
Maint-Roofing	$7,272,085	5/26/2007	7/15/2011	✓	✓	✓	✓
Computer Windows –Lenovo	$20,762,752	5/13/2011	5/12/2012	✓	✓	✓	✓

Source: CCSD Purchasing and Warehouse Department, 2011

The Purchasing and Warehousing Department and the Operations Department also started a recycling program that is saving the district approximately $2 million annually. To implement the program, the district obtained bids from area vendors to handle recyclable items such as paper and plastic that had been going into the landfill. Because the district diverted some of its solid waste, it saved money with its waste management and garbage collection contract.

As an incentive for participating in the recycling program, schools are given a rebate based on the amount of waste that is diverted to recycling.

Recommendation 5-2.2: Reduce the amount of non-standard purchases in the district and implement spending controls.

During the period of time that CCSD was experiencing explosive growth in student enrollment, beginning in the 1990s and lasting through 2007, the district was building numerous schools annually, the highest number of schools built in a single year being 16. To help furnish and equip each new school in an expedient and cost effective way, the Purchasing and Warehousing Department developed a "standards" process where typical items that go into a school (student desks, teacher desks, computers, black boards, white boards, tile, carpeting, etc.) were pre-selected and bids obtained in advance. Each standard item contained several options so that site administrators had flexibility in the way that they furnished or equipped their schools.

Purchasing and Warehousing Department staff found that schools needing to order non-standard items on occasion experienced significant delays in obtaining the items they needed because they were not pre-bid. To alleviate these delays, purchasing developed a non-standard process to simplify and streamline approval.

The Purchasing and Warehousing Department also publishes all its bid items in a district catalog, allowing school and departmental staff to search for items needed in an online, automated format. All items contained in the catalog have been bid to district specifications and have the district's negotiated prices listed.

Many site administrators choose to purchase non-standard items or items that are not listed in the district's catalog. These non-standard purchases are costing the district additional time to bid and process the items as well as additional costs to procure since there are fewer bulk purchases being made. Non-catalog items are typically purchased with the district's procurement card which also results in higher than necessary expenditures. In addition to buying sub-standard products, procurement card purchases can also result in the loss of pre-negotiated discounts. In addition, use of the procurement card requires that staff be away from their job while selecting and purchasing items.

Site administrators argue that they can obtain items quicker and at lower costs than what can be obtained through the district's catalog. However, these non-catalog items do not always have the same specifications as catalog items. To demonstrate this, the Purchasing and Warehousing Department conducted a comparison of a sample office chair and a sample computer. In each case, the more expensive item available through the district catalog was, in the long run, more cost effective due to estimated useful life and better warranties. Six positions in the department are currently involved in the handling of the non-standard item requests, three of which could be eliminated if non-standard purchases decreased.

Fiscal Impact

In addition to position reductions that could be made in the Purchasing and Warehousing Department (estimated to be $200,000 annually), the district could also achieve cost reductions of approximately

$1.75 million annually through cost reductions on the purchase price of many of the items it procures. This estimate is derived by taking purchases made with a procurement card and calculating the negotiated reductions had the item been purchased from a district bid.

Recommendation 5-2.2	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Reduce the amount of non-standard and non-catalog purchases in the district and implement spending controls	$0	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000
Eliminate staff in the Purchasing and Warehousing Department who handle non-standard purchases	$0	$200,000	$200,000	$200,000	$200,000	$200,000
Total	**$0**	**$1,950,000**	**$1,950,000**	**$1,950,000**	**$1,950,000**	**$1,950,000**

Recommendation 5-2.3: Create a position of Technology Buyer to assist with technology purchasing in the district.

The Purchasing and Warehousing Department does not have a dedicated technology buyer with requisite specialized knowledge to support hardware and software purchases. As discussed in the technology section (Section 4) of this chapter, technology purchases do not always follow the district's standards and can be executed without adequate coordination or control. Creating a Technology Buyer position will help the district better plan and better coordinate purchases involving technology. In addition, such a position can be helpful in evaluating purchases before they are made to ensure that they will be compatible within the district's operating environment.

Such a position should work closely with the Technology and Information System Services Division, and serve as liaison between the customer department or school, the Purchasing and Warehousing Department, and Technology and Information System Services Division.

Fiscal Impact

The fiscal impact associated with this recommendation is estimated to be approximately $81,600 annually for salary and benefits.

Recommendation 5-2.3	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Create a position of Technology Buyer	$0	($81,600)	($81,600)	($81,600)	($81,600)	($81,600)
Total	**$0**	**($81,600)**	**($81,600)**	**($81,600)**	**($81,600)**	**($81,600)**

Employee Management Relations– Health Benefits Administration

CCSD has three separate health benefit plans: one for administrators, one for support staff, and one for teachers. The district spends $186 million annually from its General Fund for health insurance for its employees. CCSD manages the support staff health trust fund, whereas the Clark County Educators Association manages the teacher's health fund and the Clark County Association of School Administrators manages the fund for the district's administrators.

The district is in the process of hiring a consultant to conduct a feasibility study to determine if the district would benefit from consolidating some or all of its health plans.

There are 15,861 employees covered by the teacher fund; 7,500 covered by the support employee's fund, and 1,100 employees covered in the administrator's fund. The benefits available to teachers include a choice of two medical plans, and the district contributes either $538.87 or $613.87 per covered employee per month for the benefits. The support employee's plan includes not only medical coverage but also dental, life, long-term and short-term disability, and vision benefits. CCSD contributes $526.65 per covered employee per month for support employee coverage. The district administrator benefits include medical, life, and long-term disability coverage, for which the district pays $670.62 per covered employee per month.

Recommendation 5-2.4: Negotiate language in the collective bargaining agreements to provide CCSD with access to health benefits plan performance information.

Under the arrangements with the associations, CCSD administration has little or no voice in how the health funds are administered. The district pays a set amount per covered employee without knowing essential information that would support its ability to negotiate a rate. The district has requested data from the groups administering the health funds, but only limited information has been shared with the district.

The district should negotiate through its collective bargaining agreement with the teachers' and administrators' association groups to request that the associations provide a summary of financial data to include, at a minimum: covered employees and coverage level, monthly aggregate premiums and claims, diagnosis and total paid for claim amounts over $100,000 on an annual basis. The district should also request that the associations provide an annual executive summary of renewal negotiations and results.

The current structure places both fiduciary responsibility and financial liability for teacher and administrator health benefits with the respective associations. But the district is accountable to taxpayers for overall health benefits expenditures, and so it must ensure the proper administration of these funds.

Fiscal Impact

This recommendation can be implemented with existing resources.

Recommendation 5-2.5: Periodically conduct audits to verify eligibility of health benefits plan dependents.

The district's health benefits plans cover not just CCSD employees, but their dependents as well. However, in the past five years, no audits have been conducted to verify the eligibility of dependents participating in the district's health plans. Such audits would ensure that overpayments due to claims by ineligible claimants are not being incurred.

Fiscal Impact

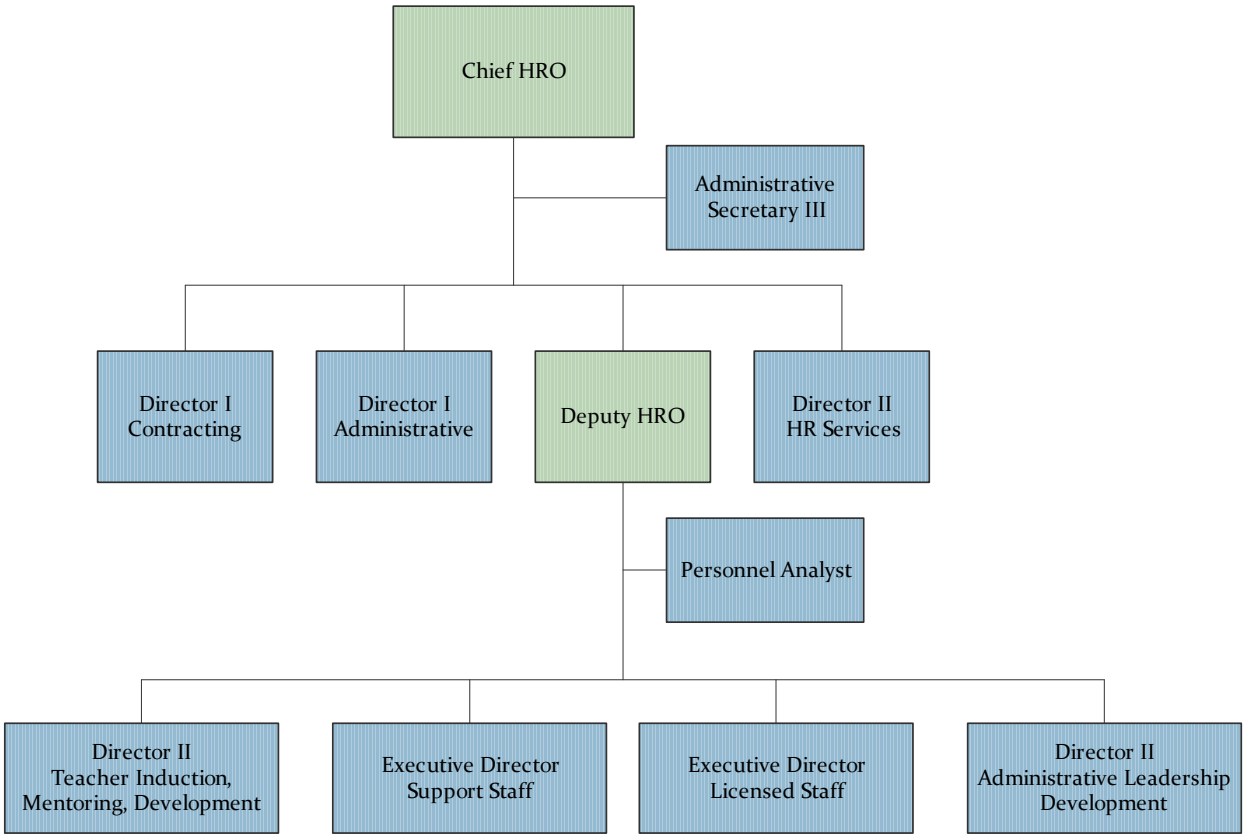
Because the district has been unable to collect data on the health plans administered by the associations, it is not possible to determine the total number of participating dependents and therefore estimate a fiscal impact. However, other districts who have conducted such dependent eligibility audits typically find that these audits provide cost reductions by reducing payments to ineligible persons.

Section 3 – Human Resources

As of July 1, 2011, the Human Resources (HR) Division at CCSD consisted of 172 staff members. Eleven employees report to the general HR Division office, eight employees provide support to administrative personnel, 29 provide support to licensed personnel, 16 provide support to substitute teachers, and 59 provide support to support staff. Additionally, there are 15 employees in contracting services, five in administrative leadership development, seven in support staff training and development, and 22 in teacher induction, mentoring and development.

Reporting to the Acting Chief Human Resources Officer (CHRO) are two Executive Directors – one for Support Staff Personnel Services and one for Licensed Personnel Services. Additionally, five Directors and a Personnel Analyst report directly to the CHRO. However, once a CHRO is hired, three of the directors actually report to that position, as shown in Figure 5-3.1 below.

Figure 5-3.1. Human Resources Organization Chart



Source: CCSD, 2011

With the exception of the leadership development, mentoring and training and development functions, the primary focus of this division is on transaction processing. It is extremely difficult for HR staff members to focus on strategic or proactive HR activities. This is primarily caused by:

- Lack of automation and shared systems among the groups within HR (e.g., Administrative Personnel Services, Licensed Personnel Services, Substitute Services, and Support Staff Personnel Services)

- Arbitrary decision rules and computer system limitations (for example, staff members in HR stated that once an employee turns in their disability retirement paperwork, even if the employee filled out the form incorrectly, neither benefits employees nor the employee may correct the error because of a system limitation) and processes that lengthen human resource actions relating to hiring, firing and performance evaluation

The groups within the HR Division at CCSD are primarily organized around the types of employees serviced. However, some duties appear to cross outside of these organizational boundaries. For example, Administrative Personnel Services oversees support staff classifications, job descriptions and desk audits, and Support Staff Personnel Services oversees the placement of food services and bus driver substitutes and temporary clerical employees. Although there is a reception desk at the front of the HR building, each sub-department also staffs a reception desk.

The information systems supporting the HR function (for online applications, applicant tracking and employee management) are decades old and functionally obsolete. Some have been in use since 1990, and are mainframe-based systems. These systems are quite inflexible and require significant resources to maintain. More importantly, they are not capable of supporting strategic human resources planning and decision making, and they are not integrated with other enterprise-wide systems.

Because of departmental divisions and the lack of modern integrated systems, the processes in the HR Division are highly fragmented and paper-intensive for both applicants and HR staff members. Some electronic forms that are employed, such as job requisitions, are printed from the system and manually routed for approval. Currently, some departments – such as licensed personnel and substitute personnel – have online applications systems in place to process applications. However, support staff personnel are operating in a primarily paper-based environment and utilize paper applications.

In the next sections, several recommendations are set forth for implementation in the HR Division. The overarching goal of these recommendations is to streamline operations in the HR Division to better serve internal and external customers, and to allow HR staff members to concentrate on strategic issues, rather than transactional processing of paper forms. Specifically, there are several initiatives that need to be implemented:

- **Implement an integrated HR/Payroll information system and streamline/reengineer processes in Human Resources** for applicant and employee recordkeeping and position control. The district is currently evaluating options to move forward with previous plans to implement the HR/Payroll modules of its SAP ERP system. These plans were put on hold as a result of recent cutbacks in state funding. They should be revived as soon as funding for implementation can be secured.

- **Implement timekeeping system for hourly employees.** Hourly support employees at CCSD are paid on an exception basis, meaning that employees are assumed to work 40 hours per week unless exceptions are reported to a supervisor or timekeeper. This method is prone to unreported or under-reported leave time and may lead to abuse by some employees. By implementing the timekeeping module of SAP (after the HR/Payroll module implementations) and moving away from exception basis pay for these employees, CCSD can increase accountability without significantly increasing the workload of Payroll staff members. Different timekeeping systems are currently in place for food services, facilities, and transportation employees. The district should explore the practicality of moving all employees to the same system.

- **Standardize forms and processes in Human Resources to better coordinate work efforts.** The various departments in Human Resources (e.g., Support Staff Services, Licensed Personnel Services, and Substitute Services) perform similar recruiting and hiring functions for different types of employees. But these departments use different forms and different processes, each requiring different computer systems and producing different management reports. Efforts should be made to simplify and standardize these forms, processes and reporting systems.

- **Improve the ability of HR to support an efficient process for attracting and retaining highly talented staff.** Currently, school leadership reports that the number of qualified candidates in certain areas, such as occupational therapists, is insufficient. Further, it was indicated that there are unnecessary delays or candidates are forced to make decisions too quickly – both resulting in the loss of qualified candidates.

- **Reduce the amount of paper produced, routed and stored in and on behalf of Human Resources.** The Human Resources Division uses a large amount of paper. Even some electronic forms, such as requisitions and licensed personnel applications, are printed from the system, routed for manual processing and approvals, and filed away in file cabinets and archival boxes.

- **Give preference to organization configurations that will promote collaboration, ease the burden of applicants and reduce duplication of effort by HR employees**. For example, the district could set up an intake center where employees and applicants can report and be directed to the appropriate HR person who can assist them. This intake center would be staffed with information liaisons and intake clerks, and preferably contain kiosks at which applicants can apply for jobs and employees can submit QSPs (forms used to apply for placement in the qualified selection pool for a particular position).

Table 5-3.1 provides a summary of the recommendations presented in this section, including the five-year fiscal impact resulting from implementation.

Table 5-3.1. Summary of recommendations

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
Human Resources					
5-3.1. Implement integrated systems and streamline processes in HR.*	High	2013-17	$825,000	Yes	No
5-3.2. Improve the ability of HR to support an efficient process for attracting and retaining highly-talented staff.	High	2013-14	$0	No	Yes
5-3.3. Reduce the amount of paper produced, routed and stored in and on behalf of HR.	Medium	2013-14	$0	No	Yes
5-3.4. Give preference to organization configurations that promote collaboration, ease the burden of applicants, reduce duplication of effort by HR employees and provide exceptional customer service to employees.	High	2013-14	$0	No	No
Totals			**$825,000**		

* Fiscal impacts related to the software implementation are shown in *Chapter 5, Section 4 - Technology*

Recommendation 5-3.1: Implement integrated systems and streamline processes in HR.

The various departments within the Human Resources Division (e.g., Support Staff Services, Licensed Personnel Services, and Substitute Services) have similar primary functions in that they are responsible for recruiting, hiring and supporting employees in the district – although the types of employees supported differ. Although the employees within each sub-department appear to be well cross-trained, there is a disconnect when it comes to collaboration and standardization of processes within HR as a whole.

Each area employs slightly different processes and procedures in performing very similar tasks. Some areas are more automated (e.g., Licensed Personnel Services) while some areas are extremely paper-based and manual (e.g., Support Staff Personnel Services) – with some areas falling in-between.

At this time, some departments within HR – such as Licensed Personnel Services (Licensed Personnel), the Administrative Personnel Services (Administrative Personnel) and Substitute Services (Sub Services)

– have systems in place to accept employment applications online (a mainframe system called HR Daily). However, Support Staff Personnel Services (Support Personnel) operates in a primarily paper-based environment and utilizes paper employment applications, which are three-part no carbon required (NCR) forms. These application forms are manually routed throughout the application process. Although reference requests can be distributed via email using HR Daily, Administrative Personnel distributes them on paper, via US mail.

Because there is not a central repository of applicant data, HR staff who receive an application must perform manual research to determine if an applicant has previously submitted an application with another HR group. The manual research typically involves walking to the various areas of HR in order to inquire if the applicant has previously submitted another application. This is the only available method for determining if there is any information that can be shared to expedite the hiring process.

Administrative Personnel leadership indicated that even in the case where an internal applicant (e.g., a teacher) is applying for an administrative position within the district, it is often difficult to obtain the necessary data from the Human Resources Management System (HRMS) used for licensed employee management and tracking. Additionally, it was stated that even the images in the Document DNA (DNA) imaging system are separate and require imaged files to be printed and rescanned into the administrative imaging system after the employee is transferred.

Some initiatives are being currently implemented which will assist in sharing applicant information. For example, an Access database of FBI fingerprinting results is being created by the Support Staff compliance staff to assist HR staff in sharing applicant background check results. If one HR area has fingerprinted an applicant, the other areas may use those same results if the fingerprinting results are less than six months old. This has the potential to greatly expedite the process, as fingerprinting results from the state can take up to 12 weeks to be returned. However, this is not ideal as this information should be maintained in a secure, password-protected system to which limited employees have access. Although HR leadership has investigated the possibility of utilizing a third-party to expedite the fingerprinting and background searches, they have indicated that the third-party searches are not as thorough as that performed by the state.

Next, the applicant data (for Licensed Personnel and Sub Services only) is hand-entered into the FoxPro-based Applicant Tracking System (ATS) which has been in use by CCSD since 1990. HR staff members indicated that it “crashes” frequently. Also, the system is not updated in a timely manner when new fields must be added due to law or policy changes.

Although Licensed Personnel, Administrative Personnel, and Sub Services accept online applications, once an applicant submits the online application, the application is printed by a staff member and processed and routed manually. Additionally, because ATS can only store one application per person, applicants applying for additional positions must complete and submit additional applications on paper.

Other major shortcomings of the applicant tracking system are:

- The ATS does not have a place to indicate that references have already been sent out for the applicant.

- The ATS allows applicants to submit their applications even if required information is missing.

Once licensed employees are hired, HR staff members enter their data into the HRMS, an in-house, mainframe employee management system. However, Support Personnel and Administrative Personnel staff indicated that a full implementation of the HRMS system for all types of employees was placed on hold when the SAP ERP system was purchased, and was not re-started when the SAP project was put on hold. Because of the lack of electronic employee management, Support Personnel and Administrative Personnel staff members keep folders and binders containing basic data for their employees.

A major limitation of the HRMS is that it contains only current data and does not retain an employee's history. Because of this limitation, HR has implemented a "History Card" software program in which HR staff members perform duplicate entry of employee history when there is any change to the employee (e.g., change in position, location, etc.). However, reports related to groups of employees cannot be generated from this software. Rather, information about each employee of interest must be accessed one employee at a time.

Pay data for all types of employees is entered into the mainframe payroll system (sometimes referred to as Passport). However, these data cannot be entered prior to the payroll period in which it occurs. Rather, HR and Payroll employees must wait until after the processing for one payroll period is complete before changes for the next payroll period can be entered. Other limitations of the Passport and HRMS systems include:

- An employee cannot be paid for two different types of overlapping pay. For example, if a substitute is hired as a teacher, but the substitute pay has not been completed, the HR Division must submit a manual form in order for the employee to receive the substitute pay.

- Mid-year employee transfers require manual payroll calculations (e.g., changes between full-time, part-time or shared jobs; moves to and from Edison Schools).

- HR primarily relies on Computer Information Services (CIS) to provide daily, weekly and monthly reports.

- Full-time equivalent (FTE) budgeting/position control is performed manually in Support Personnel, using a monthly report that is provided from the Budget department. Support Personnel writes on the report when staff change positions and reconcile this information to their school and department binders. Other HR areas track positions in Excel.

Because of the limitations of the systems utilized in HR, many Excel spreadsheets and Word documents have been created and are maintained, none of which are integrated with the others. These include the following:

ADMINISTRATIVE PERSONNEL SERVICES

- Promotions and status changes
- Seniority list
- Principalship seniority tracking
- Education information
- Position history
- Committee scoring sheets

CONTRACTING SERVICES

- Leave of Absences (LOA) database
- Separation database
- Retirement database
- New hire document tracking spreadsheet
- Unemployment tracking spreadsheet
- Imaging tracking spreadsheet
- Name change spreadsheet
- Intent receipt tracking database
- Public Employee Retirement System (PERS) additional service credit for at-risk/hard-to-fill (non-qualified) tracking database
- Document receipt tracking database for salary advancements
- Researched courses database for salary advancements

LICENSED PERSONNEL SERVICES

- License tracking database
- Alternative Routes to Licensure (ARL) database
- ARL guest presenter payment spreadsheet
- Alternative Routes to Certification (ARC) database
- Highly-qualified test reimbursements budget spreadsheet
- New teacher contract database
- New hires from outside the district spreadsheet
- Staffing allocation spreadsheet

- Transfer tracking database
- Coaching stipend budget spreadsheet
- Ticket-taker payment tracking spreadsheet
- School club (grant) budget tracking spreadsheet
- Recruiter interview tracking database
- Advertising tracking database
- Surplus tracking database
- Unemployment tracking spreadsheet
- Licensed elementary staffing transaction spreadsheet
- General recruitment services trip database
- Licensed elementary staffing recruiting trip tracking spreadsheet
- Technology equipment (for HR) check in/out spreadsheet

SUPPORT STAFF PERSONNEL SERVICES

- New hire tracking spreadsheet
- Separation tracking spreadsheet
- Applicant tracking spreadsheet (for school technology positions)
- LOA database
- Family Medical Leave (FML) database
- Staff allocations spreadsheet
- Resignation and termination tracking spreadsheet
- Surplus spreadsheet
- Reduction in force (RIF) spreadsheet
- Rights to return process spreadsheet
- PERS hours/credit tracking (pay data) spreadsheet
- Drug and alcohol testing database
- PRAXIS testing spreadsheet
- Bilingual and Title 1 test score tracking database
- Drug testing database
- Key control spreadsheet
- Police applicant database

- Support staff certificate spreadsheet (multiple worksheets)
- Suspension database
- Bloodborne pathogen tracking
- Buyer position testing database
- School Security Monitor coursework/recertification database
- Paraprofessional assessment test tracking for Title 1 position database

TEACHER INDUCTION, MENTORING AND DEVELOPMENT

- School support collaborative tracking spreadsheet

SINGLE DATABASES USED BY ALL AREAS

- Qualified Selection Pool (QSP) Helper database - linked to ATS
- Master Vacancy database
- Orientation database

Some data are tracked only in HRMS, some are tracked only in an external electronic or paper file, but some information – such as employee/applicant demographics and other basic information – is entered in both the systems and external files. This duplicate entry creates unnecessary work for HR employees because they must perform periodic verifications to make sure that the information is matching. Additionally, there is no one data source from which district can pull complete employee information for all types of employees. These data must be pieced together from various sources.

Another potential issue that will be mitigated by the implementation of integrated systems is the method used to pay hourly support employees at CCSD. These employees are exception basis, meaning that employees are assumed to work 40 hours per week unless exceptions are reported to a supervisor or timekeeper. This method may be prone to error due to unreported leave time and may lead to abuse by some employees.

In addition to the sharing of information within the HR silos, another significant issue is the differences in processes and business rules between the different HR groups. For example:

- HR groups define the termination date differently. Support Personnel uses the last day worked as the termination date while both Licensed and Administrative Personnel use the last day paid.

- Each group keeps slightly different standard documents in the electronic personnel file (DNA) and there are no consistent guidelines. Also, while Contracting Services shreds scanned files, Support and Administrative Personnel both store the paper documents in the warehouse.

- In order for an employee who has been in more than one type of job at CCSD to view their personnel file with all job history, the HR Division requires that they make a separate appointment with each HR group to view their personnel file documentation related to that type of job. *This may be a security issue which limits staff within the HR Division from seeing employees in another HR group.*

CCSD should implement integrated systems, including a timekeeping module, to support the HR Division and Payroll Department in order to reduce the transactional processing burden on HR and Payroll staff members and to integrate strategically important HR information with other CCSD systems (e.g., the accounting system). Additionally, during system implementation, much attention should be directed at reengineering HR and Payroll business process in order to reduce the manual effort and time currently consumed by these processes.

Once the HR and Payroll modules are implemented, the implementation of a time system will increase accountability without significantly increasing the workload of Payroll staff members. The district currently owns the time management module for SAP and implementation of this module should be included in the project in conjunction with implementation of SAP HR and Payroll modules. Once this is implemented, the district should move away from exception basis pay for these employees.

Implementation of this recommendation will result in many benefits including: better information for decision makers concerning the district's single largest object of expenditure: personnel; dramatically improved process efficiency and effectiveness; improved consistency of HR and payroll processes and outcomes across departments; improved collaboration between HR staff members; increased accountability; increased ability of HR employees to perform strategic tasks; improved customer service to applicants and employees; and possibly further reduction of staff due to business process reengineering.

According to the 2009 Human Capital Benchmarking Study[43] performed by the Society for Human Resources Management (SHRM), the median number of HR staff for an organization with 37,341 employees is 149. With the district's current dependence on manual and paper-based processes, the current HR staffing level of 172, while higher than benchmark, is almost certainly necessary.

Some HR organizational changes and HR position reclassifications will be possible once new systems and processes are in place. For example, the district will be able to move to online applications for all areas. Based on this change, the functions of the intake clerk position would significantly change or be eliminated.

Fiscal Impact

CCSD has purchased 23 modules of the SAP software (including HR, payroll, and time management) and has implemented 14 modules at this time. The district is currently evaluating options to move forward

[43] http://www.shrm.org/Research/SurveyFindings/Articles/Documents/09-0620_Human_Cap_Benchmark_FULL_FNL.pdf

with implementing the remaining nine modules. The implementation of the remaining SAP modules is expected to incur significant costs related to implementation support – estimated to be approximately $10,000,000. Conversely, there will be some cost reduction opportunities in terms of staff reductions, approximately $165,000 annually according to CCSD, due to two full positions that could be eliminated. Some additional positions may be repurposed once the transactional processing burden is removed with the new system and processes.

An ERP implementation allows new business processes to be designed and old business processes to be reengineered to improve timeliness and effectiveness. CCSD should avoid the temptation to re-create current processes in the newly implemented system. Doing so will lead to costly customizations and upgrades, and can actually perpetuate inefficiency. Rather the configuration of the system should be guided by the system's "vanilla", or un-customized, processes. These process changes are expected to result in greater efficiencies, allowing for additional staff reductions that can be accomplished through attrition.

Some cost reductions, in the form of staff reductions, are expected to be realized after the system implementation is complete and the human resources processes have been streamlined. For example, the two positions that are currently devoted to maintaining the crosswalks between the payroll system and SAP could be eliminated, resulting in a cost reduction of $165,000 annually. Additional human resources positions could be repurposed and/or eliminated through attrition.

Although the implementation and process re-engineering will require a significant staff commitment by the Human Resources Division, it will ultimately result in increased efficiencies. As HR/payroll business processes will be reengineered during the implementation, human resources staffing should be continuously re-evaluated during the project to determine which positions may be eliminated and which positions need to be re-purposed (and possibly reclassified).

The software implementation portion of the fiscal impact for this recommendation is included in *Chapter 5, Section 4 – Technology*.

Recommendation 5-3.3.	One-Time (Costs) / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Eliminate two positions	$0	$0	$165,000	$165,000	$165,000	$165,000
Total	**$0**	**$0**	**$165,000**	**$165,000**	**$165,000**	**$165,000**

Recommendation 5-3.2: Improve the ability of HR to support an efficient process for attracting and retaining highly-talented staff.

In the past, the Human Resources Division has been effective in recruiting the quantity of staff needed to support growth, but as growth has slowed, more attention can be shifted to candidate quality and competence, as well as the efficiency of the overall process and customer perceptions related to it.

School and department leadership noted the following major issues related to the hiring process:

- It takes too long to hire staff.
- The number of quality candidates in the Qualified Selection Pool is sometime inadequate.
- The "bumping" process (by which more senior employees may, by union contract, claim positions held by less senior employees) is contentious, cumbersome, causes great inefficiency (due to frequent retraining of staff) and has a detrimental effect on morale.
- The salaries offered by CCSD are not perceived to be competitive locally or nationally.

During interviews and focus groups, the review team found that the HR Division is perceived by applicants and hiring managers to be somewhat inefficient and bureaucratic, and some expressed frustration with HR's current organizational silos not effectively sharing data, such as fingerprinting results, references and other application information.

Although some of these issues will be mitigated by the implementation of other recommendations, the review team recommends the following actions also be taken. It is anticipated that existing staff can perform the work required for the implementation of these recommendations, so there will not be a fiscal impact.

Reduce the time-to-hire by streamlining the fingerprinting process.

The implementation of integrated systems, as well as the streamlining of processes and collaboration that will occur as a part of that project, is expected to decrease the time it takes to hire a new employee. However, as described earlier, the fingerprinting process – which is now performed for CCSD by the state, but very slowly – will continue to be a source of delay unless the process can somehow be accelerated. HR Division leadership should continue previous efforts to explore other avenues by which applicant fingerprint checks can be accomplished on a timelier basis, or work with the State of Nevada to reduce the time required.

Increase the number of quality candidates in the QSP.

It was reported to the review team that the number of qualified candidates in certain areas, such as occupational therapists, is insufficient. Additionally, district management expressed concern that some candidates may be denied entry into the QSP (or do not apply) due to non-essential job requirements in the posting or advertisement. An example provided was related to an administrative position which required an obsolete Nevada certification.

Some managers and principals also expressed the opinion that some candidates in the QSP are found to be unqualified after further review.

According to HR staff, reductions in force, rights to return, and "bumping" are strictly dictated by employee seniority. Almost every management employee interviewed – including those in HR –

expressed frustration with the bumping process, and especially in cases wherein a qualified, skilled staff person is replaced by a nominally qualified, more senior employee who simply cannot perform the essential functions of the position. One example provided was a personnel assistant who was bumped by another employee who had no HR experience. The bumped employee then bumped another employee from a registrar position at a school.

Principals stated they have "lost a lot of autonomy" to staff their schools with competent, highly qualified staff, because only seniority and licensure, not experience or past performance, is taken into consideration when placing a teacher who has exercised his or her "right to return" from reduction in force (RIF) or leave of absence.

It was also stated in principal interviews that when an Empowerment School rejects a teacher due to unsatisfactory performance, such teachers are placed in vacant positions (or can "bump" other teachers) at a regular school – sometimes without the approval of the receiving principal.

According to the negotiated labor agreement[44], an employee who is assigned to a vacant position or who accepts a position as part of a surplus reassignment or RIF must meet the qualifications detailed on the published job description.

A logical recommendation would be to review and update job descriptions with true required education and specific experience necessary to perform each job. However, a sample of job descriptions for support staff was reviewed by the evaluation team and most contained very explicit required qualifications, such as business degrees and years of experience in a particular field or working with specific software or hardware.

There are a number of separate actions that can be taken to assist with this recommendation:

1. **Allow hiring managers and principals to participate in the process PRIOR to applicants/employees being placed into the QSP.**

   Particularly for positions which require applicants with specific skills, the hiring manager/principal will be better able to determine whether the type of experience that the applicant possesses is adequate and meets the requirements of the position.

   Because education and experience are established on the job description, it would appear that these minimum qualifications are not thoroughly enforced when performing bumping processes. HR should establish a more systematic process for evaluating employees' qualifications and experience prior to allowing them to bump a better qualified person from a position.

   Additionally, it was indicated by HR management that important parts of the budget process, specifically the enrollment projections and assignment of staffing allocations, which affect HR,

[44] http://www.ccsd.net/jobs/gnrl/?p=agreements

typically occur in mid- to late-spring. This greatly compresses the time that HR staff and building supervisors have to fill their vacant positions prior to the involuntary surplus meetings in May.

2. **Increase the number of metrics that are tracked and analyzed related to recruitment.**

   With the implementation of any modern ERP system, the ability to track and measure all types of data will be possible. CCSD should ensure that the system is configured in such a way as to allow the measurement of applicant source quality. Data points used to measure this include: locations of recruiting trips or advertisements, the amount of recruiter time spent, the travel expenses or advertisement costs, number of total candidates found, number of qualified candidates, the number of new hires resulting, and the length of employment of those new hires.

   These data can help the CCSD HR Division focus recruitment and advertising efforts on the most effective sources of quality applicants and discontinue ineffective recruitment efforts.

3. **Explore alternative candidate sources and recruiting strategies.**

   Because of the budget crisis, as well as the recent lack of growth in enrollment, some recruiting activities that were performed in the past have been suspended. For example, Administrative Personnel developed and maintained an out-of-district candidate pool. Once HR processes are streamlined, it may be possible to reinstate this practice.

   A recruitment best practice for school districts is to cultivate relationships with potential employees long before they become applicants. Although some HR staff members are tasked with building relationships with post-secondary institutions, this effort is limited to teacher recruiting. Supplementary efforts should be focused on reaching other potential applicants, such as highly-skilled technology workers and other types of support staff.

   Additionally, targeted programs could be developed to cultivate interest by high school or college students in CCSD careers. Private sector companies employ strategies such as these to allow students to work part-time in the field of interest to them while remaining in school.

   An example internal to CCSD is related to a food services course offered at the middle and high school level. As a part of this program, approximately 800 to 1,200 high school students per year (who are taking the food services course) work part-time work in the school cafeteria – time for which they are paid. Middle school students participating in this course are not paid for the time that they work in the cafeteria.

   The same approach could be applied to other skilled trades and support functions.

   Additionally, a growing number of organizations are augmenting their traditional recruitment channels with recruitment-oriented use of social media such as Facebook, Twitter, and LinkedIn in order to reach a larger number of potential applicants at a lower cost. These same tools can

be used to publicize the achievements of CCSD, drive traffic to the CCSD website and provide an alternative to the mainstream media when a message needs to be communicated.

4. Administer performance evaluations more effectively.

Managers and principals throughout the district indicated that it is difficult to terminate chronically under-performing employees from CCSD. There is a perception that the district shifts unsatisfactory employees from supervisor to supervisor, rather than effectively managing poor performers out of the district. This practice negatively affects morale. It is likely that a major driver of this practice is the current two-tiered performance rating system which requires that supervisors rate each employee as "unsatisfactory" or "satisfactory". Such an "either-or" evaluation does not allow adequate differentiation of performance evaluations. The district's new superintendent intends to shift CCSD to a four-tiered evaluation system using the ratings "highly effective", "effective", "minimally effective", and "ineffective". The review team supports this change.

Without some intermediate ratings, it is human nature to over-evaluate and assign a satisfactory rating. Data provided by CCSD HR staff indicated that in 2010-11, 37 of the 18,010 licensed employees (approximately 0.2 percent) received an unsatisfactory performance rating last year. This is surprising in the context of the district's relatively low student performance.

When asked to explain why there is a tendency to effectively over-evaluate employees so that they will be accepted by other supervisors in CCSD, several managers and principals referenced the cumbersome guidelines (dictated by negotiated agreements) that must be followed in order to terminate a poor performer. They felt that it resulted in extremely long processes, and a number of interviewees indicated that even when these procedures are followed and the employee is terminated, there have been instances when the Employee Management Relations (EMR) Department has reinstated or reassigned the employee without addressing the performance problem. The example given was an employee who was terminated for excessive use of sick leave or because they were absent without leave for more than five days. It was stated that "about two to three times per year", an employee such as this will go through the arbitration process and be rehired and placed in another department. In order to reduce the confusion and dissatisfaction with the progressive discipline process, the EMR Department should provide additional communications and training regarding performance management and the negotiated agreements to managers and principals. Subjects of the communication and training should include: basic requirements of the negotiated agreement; how to conduct an effective and defensible performance review; creating goals, objectives and action plans for improvement; coaching skills; and avoiding common types of biases.

Additionally, performance measures related to the disposition of employee grievances should be tracked in order to identify trends and mitigate risks, such as unfair management practices, and litigation trends. Some performance measures to consider are: grievance rate by type of

grievance, disposition of grievances (in favor of the employee or the employer), and the EMR Department operating expense per employee FTE.

Increase communication regarding the RIF/surplus/bumping processes.

Although the process of "bumping" is mandated by the negotiated agreements[45], there are some actions that the HR Division can take to ensure that the process goes more smoothly and that employee perceptions are managed.

Increased proactive communication to managers, principals and employees about the requirements of the negotiated agreement requirements and their impact on HR processes may minimize some issues in that the "customer" expectations will be better managed.

Perform market research to ensure that CCSD's compensation and benefits are in line with other local organizations and with comparably sized school districts with which they compete for employees.

The leadership of two departments/divisions (HR and Technology) indicated in interviews that the pay scale for professional employees, such as teachers and highly-skilled technology employees, may not be in line with local and national entities with which CCSD competes for applicants.

1. HR leadership indicated that CCSD is not nationally competitive for first-year teachers and CCSD does not offer stipends for hard-to-fill positions. This issue was also addressed in Recommendation 6-5 in the MGT report in 2006[46].

2. The Technology Department indicated that it is difficult to get highly skilled technical employees, such as programmers, because of the salary levels offered by CCSD.

New teacher placement salaries of selected peers are presented in Table 5-3.2.

Table 5-3.2. CCSD and peer district new teacher placement salaries

District	Bachelors	Masters
CCSD	$34,688	$40,280
Miami-Dade County Public Schools	38,500	41,600
Broward County Public Schools	39,000	42,650
Houston Independent School District	44,987	46,017
Peer Average	**$40,829**	**43,422**

Source: CCSD; Peer district websites

[45] http://www.ccsd.net/jobs/gnrl/?p=agreements

[46] *Clark County School District Financial Management Review,* MGT of America, October 2006.

CCSD beginning teacher pay (for those with bachelor's degrees) is 15 percent below the average of selected peers, and nearly ten percent below the lowest peer – Miami-Dade County Public Schools.

Fiscal Impact

Unless compensation levels are adjusted, these recommendations will not have a fiscal impact.

Recommendation 5-3.3: Reduce the amount of paper produced, routed and stored in and on behalf of HR.

Review and update retention schedules.

CCSD Regulation R-3621[47] (Records Retention Schedule) lists 180 different forms and documents, along with the party responsible for retention and the required retention period. Of these 180 items, 84 – nearly 50 percent – require permanent retention. However, the time required for retention at CCSD is far greater than is stated in the Nevada Local Government Retention Schedule (Section Number S-1031[48]).

For example:

- CCSD requires permanent retention of authorizations for extra pay (CCF-5), while local government regulations only require that document to be kept for three fiscal years from the date of authorization.
- CCSD requires permanent retention of licensed employee appraisal reports (CCF-8), while the local government regulations only require those documents to be kept for three calendar years from the end of the calendar year in which the individual terminated.
- After two years, administrative applications are printed from the HR Daily system and sent to the warehouse. A Word document is kept which lists the names of the applicants who were stored. However, local government regulations require documentation related to requisitions, applications and other related documentation to be retained for two calendar years after the position is filled. (An exception is that under the antidiscrimination laws, if there is a pending charge or claim of discrimination against the organization, all relevant hiring records must be retained until the conclusion of the case.)

[47] http://www.ccsd.net/pol-reg/pdf/3621_R.pdf

[48] http://nsla.nevadaculture.org/dmdocuments/school_districts.pdf

Existing staff can accomplish this recommendation. Fiscal impacts will be limited to cost reductions related to the cost of warehouse storage space and staff time that will no longer need to be spent processing the retention requirements.

Reduce or eliminate manual and paper-Intensive processes and dispose of paper, when possible.

There are an extremely high number of manual, paper-based processes in the HR Division at CCSD. In fact, many forms are NCR forms which are managed by an HR employee who manages changes and orders them when stock is low. Many of these forms require manual calculations during completion, and all of them are manually routed for signature. One example of a frequently used NCR form is the CCF-5 or authorization for extra pay form. Every two week pay period, approximately 700 to 800 CCF-5s are processed by the Support Personnel Pay Data group. Also, if the extra pay includes overtime, a separate CCF-5 is required. This form is also used when an employee changes jobs within a pay period.

Both HR and Payroll employees indicated that they feel that there is no control over the CCF-5 process and it is difficult to know if duplicate forms are being submitted for the same person and reason – primarily because there is not a date field on the form and because of the volume of forms received.

Other manual and paper-based processes include:

- Support personnel applications
- Licensed personnel applications – Although they are completed by the applicant online, licensed personnel applications are printed from the system and routed for manual processing.
- Licensed personnel offer letters – While there is some electronic workflow leading up to the offer for employment for licensed applicants, the actual offer letters are printed and mailed.
- Intent letters
- Contracts
- CCF-30 (licensed employee transfer notifications) – CCF-30s are delivered electronically to Contracting Services and the paper form is also routed to the same employee who receives the electronic notification.
- Requisitions – Even some electronic forms, such as requisitions and licensed personnel applications, are printed from the system and then routed for manual processing and approvals.

Several HR employees indicated that the combination of their manually routed forms and the recent decrease in mailroom services is adversely affecting the timeliness with which they can perform their job functions.

After processing the paper forms, they are scanned into the online personnel folder in the DNA system. While some HR groups destroy the paper at this point, in some HR groups, the paper copies are shipped to the warehouse for storage, sometimes permanently.

Chapter 239, section 51 of the Nevada Revised Statutes (NRS 239.051[49]) states that "any custodian of public records in this State may destroy documents, instruments, papers, books and any other records or writings in the custodian's custody only if those records or writings have been placed on micro-photographic film or if the information they contain has been entered into a computer system which permits the retrieval and reproduction of that information." As previously recommended in the 2006 MGT report[50], Gibson also recommends that CCSD dispose of personnel/employee record documents once those documents are imaged into an electronic personnel record file.

During implementation of the HR/Payroll system, special consideration should be given to eliminating paper routing and manual processing. Where possible, electronic forms and workflow should be utilized to reduce the time and effort that is expended performing these manual activities.

Fiscal Impact

These recommendations will not have a concrete fiscal impact, but will result in increased efficiencies and some potential decrease in storage costs related to warehouse space.

Recommendation 5-3.4: Give preference to organization configurations that promote collaboration, ease the burden of applicants, reduce duplication of effort by HR employees and provide exceptional customer service to employees.

As discussed previously, the HR Division is divided into silos which negatively impact the level of customer service, as well as customer perceptions of the department's professionalism.

The district is currently working on a major reorganization and there are some recommendations related to the new organization configuration which can be implemented to mitigate these issues.

Eliminate duplicative reception desks within HR.

Currently, the HR Division staffs multiple reception desks. An Information Liaison and a Security Guard are stationed at a reception desk at the building's entrance. The Information Liaison is responsible for answering basic questions posed by visitors, as well as collecting information regarding the reason for their visit and informing them of what must be done to accomplish the goal for their visit. Before visitors are allowed to continue into the building, they must sign in and receive a visitor's badge prior to continuing to the HR department or office they wish to visit.

Additionally, each HR department, such as Administrative Personnel and Support Personnel, has its own reception desk at which the visitors must again explain the purpose of their visit and sign in.

[49] http://www.leg.state.nv.us/nrs/NRS-239.html#NRS239Sec051
[50] *Clark County School District Financial Management Review,* MGT of America, October 2006.

Another issue related to reception is that communication frequently stops at the sub-department reception desk and the main reception desk staff does not receive updates and other information consistently. This causes confusion for the visitors and the front desk reception staff.

These duplicative reception desks and sign-ins are inefficient and should be eliminated. The main reception desk should continue to greet visitors, gather information for their visit and process them for a visitor's pass. Then, the information regarding the reason for the visit should be communicated to the HR department or office to which the visitor is going.

In the short-term, these staff members should be re-assigned to relieve the staff burden related to the systems implementations. Eventually, some positions may be eliminated through attrition.

Co-locate similar functions and cross-train employees to increase collaboration.

There are employees in each of the HR departments who perform similar jobs. Each HR department effectively cross-trains the employees within their own department so that various tasks can be accomplished when an employee calls in sick or goes on vacation. However, no collaboration or cross-training between HR departments was reported in the interviews conducted with staff. The silos in HR are the primary reason for this.

HR Division leadership should institute cross-training across organizational silos in order to realize better coverage as workloads shift during different times of the year. Also, arrangements should be made to facilitate the sharing of workloads throughout the year among HR staff. For example, the review team spoke to an employee who reports to another department head, is paid out of the Human Resources budget and performs Human Resources related work, but is not located in the HR Division. The job is of a seasonal nature and during the summer there is very little to do. Prior to moving to the current location, the position was co-located in Human Resources, which permitted some cross-training and work load sharing that is no longer possible.

These types of situations should be minimized by co-locating HR employees to allow the sharing of workloads during the various "peak" times.

Re-distribute duties, as appropriate.

Currently, some tasks appear to be misplaced among the HR departments. For example, Support Personnel handles the placement of temporary clerical substitutes and the Food Services Department handles the placement of their own substitutes, as does the Transportation Department.

It is recommended that the placement of all substitutes be centralized in the Sub Services Department using automated systems already in place.

Furthermore, the Administrative Personnel Department is in charge of the support staff job descriptions, reclassifications and desk audits. These duties should be shifted to the Support Personnel Department.

Adjust positions, where necessary.

After the recommended process improvements are implemented, the department will be able to re-evaluate staffing levels and the number and type of positions required to conduct business. For example:

- The need for intake clerks will decrease after all applications are accepted online, but the district may wish to refocus these positions to provide assistance to applicants (via telephone or in-person) as they are completing the online application (at home or at kiosks on the CCSD premises).
- Because the implementation of integrated systems is expected to decrease the amount of time spent on data entry and other manual processes, some clerical, data processing positions may be converted to another type of position or eliminated through attrition.

Fiscal Impact

The implementation of these recommendations will result in increased efficiencies, which may – over time – produce cost reductions related to staffing levels.

Section 4 – Technology

The Technology and Information Systems Services (TISS) Division of CCSD provides technology related services and support to district users. TISS's major responsibilities include:

- Supporting the district's central information systems such as human resources, payroll, finance, procurement and the student information management system.
- Providing application development services.
- Managing email and instructional software support services.
- Implementing and maintaining the local area network (LAN) and wide area network (WAN) throughout the district.
- Supporting all computers and related equipment.
- Providing technology solution and business systems training to all CCSD employees.

TISS operates under a $34 million budget, approximately 38 percent of which relates to staffing. TISS has 174 positions. An additional 233 technology-related positions outside of TISS report to school administrators to provide instructional technology solutions and technical support in classrooms and to other divisions/departments such as Facilities, Transportation, and Student Data Services. Although TISS communicates and coordinates with the technical staff located in other divisions/departments to provide technical standards and direction, there are areas where this can be improved.

The district's operations are supported by three mission-critical enterprise-wide applications underlying the core business functions of human resources management, student information management, and financial management. The first two of these are obsolete and need to be replaced.

- **Human Resources / Payroll System**. CCSD currently uses a 20 year-old payroll/benefit system and a 15 year-old application for applicant tracking and position control (of licensed personnel only). Both of these systems were developed internally. The district does not have an applicant tracking system or position control system for non-licensed employee groups. As described in the Human Resources section (Section 3) of this chapter, these obsolete systems contribute to highly inefficient and costly human resource management operations.

  The district purchased a software application from SAP for Human Resources/Payroll in 2004, but implementation of this system was put on hold due primarily to budget constraints. The SAP HR/Payroll applications are integral parts of a larger SAP ERP system which includes financial management and purchasing applications, among others. These financial systems have already been implemented. Although the planned implementation of SAP HR/Payroll will require a significant investment and will be a challenging project, continuing to operate within the constraints of the current application environment has significant risks and costs as well. The

district is currently entertaining proposals to implement the SAP Human Resources/Payroll system. The implementation of this system will involve a significant effort from Human Resources, TISS, and the Payroll areas. It will ultimately affect the way every CCSD employee is recruited, hired, evaluated, promoted, and paid.

- **Student Information System.** The district's student information management system is also obsolete. Schools Administrative Student Information (SASI) is no longer being upgraded or supported by the vendor. This creates a significant support issue and related risks for the district. Due to its outdated technical design, the SASI application is resource intensive and not efficient compared to today's web-based student information management systems. The district has taken steps towards replacing SASI but more work and a significant investment will be required. Gibson endorses the district's efforts to pursue this needed system replacement.

CCSD has significant technology needs, but funding constraints have limited the district's ability to implement major initiatives. This section presents five recommendations that represent the highest priority needs for the district. Table 5-4.1 presents a summary of the recommendations made in this section as well as related five-year fiscal impacts.

Table 5-4.1. Summary of recommendations

Recommendation Summary	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
5-4.1. Create and implement an enterprise data management framework.	High	2012-13	($5,030,000)	Yes	Yes
5-4.2. Procure and implement a student information system	High	2012-14	($23,000,000)	Yes	No
5-4.3. Fully implement the HR and Payroll modules of SAP	High	2013-17	($10,000,000)	Yes	No
5-4.4. Develop criteria to identify and select instructional and operational software programs.	High	2012-13	$0	No	Yes
5-4.5 Phase out Educational Computer Strategist positions and re-purpose through separate functions for technical and instructional support.	Medium	2012-13	$0	No	No
Total			**($38,030,000)**		

Data Management

The efficiency and effectiveness of the technology function is limited by the lack of an enterprise data management framework which consists of:

- Establishing enterprise data standards.
- Establishing and documenting enterprise data processes.
- Establishing and implementing clear staff roles and responsibilities for data management.
- Establishing efficient data integration across all mission critical systems.

Currently, the district's data are fragmented and often duplicated among computer applications, departments and business processes, residing on diverse data platforms (or on paper forms) and managed by different staff with varying skill levels. Although there are procedures in place for data management in those systems under the purview of TISS, CCSD does not have a documented, district-wide enterprise data management framework. As a result, the district spends significant time and resources to make sure data are accurate, complete, consistent, and timely.

Enterprise Data Standards

Data standards are documented agreements that ensure data are clearly understood, uniformly defined, and uniformly collected. Data standards typically include: definitions, allowable codes, field type (e.g., alpha/numeric), field length and population requirements. All data items at CCSD are not standardized among the different applications used.

One example is the building and square footage information collected as a part of the data request for this study. The data received from various departments conflicted and were difficult to reconcile because each application stored data using different codes for buildings and used different business rules. Some square footage data for schools included portables, while other applications stored the portables separately.

Another example encountered during this study was the analysis of student-level data. In almost all data sets, there was inconsistency in variable names and values across years and across tests. As a result, an extensive amount of time was needed to clean and standardize the data in order to perform a simple examination of the same variables across all school years. In some cases, data were simply "missing" because they had been moved from one computer system to another.

Enterprise Data Processes

TISS has fully-documented data processes for SASI. This documentation includes:

- Data exports and imports
- When they occur
- How they occur (e.g., batch, user-initiated)
- Party who is responsible for the process
- Who receives the data
- The format of the data, including the fields supplied

However, none of the other mission-critical district systems (Human Resources, Payroll, Finance, Facilities, Food Services, Transportation) have been documented in this manner.

Data process documentation is important because it records, in a consistent manner, how data flows between critical applications and how it is used by these applications. Without careful documentation, this knowledge resides only in the memory of current employees. Documentation also supports analysis of how new data systems will need to import or export data from old data systems. This is particularly important for CCSD because its core systems are outdated and need to be replaced soon.

Roles and Responsibilities for Data Management

In addition to TISS, other divisions/departments such as Facilities, Transportation, and Assessment, Accountability, Research, and School Improvement (AARSI) have their own staff members who are responsible for data management. Their dealings with TISS staff that are responsible for data are based on informal relationships between the individual employees.

For example, AARSI has implemented an integrated system called the INFORM Learning System, which contains testing and common assessment data, as well as data from various instructional programs and the student management system (e.g., attendance, grades). INFORM appears to be a very promising data warehouse and reporting tool for instruction- and student-related data. However, there has been limited involvement by TISS in this study.

In addition, the individuals who manage the technical aspects of this system are not district employees; one is employed by the software vendor and co-located at CCSD, and another is an intern from the University of Nevada Las Vegas. This dependence on outside persons inhibits the institutionalization of knowledge within the district and presents some uncertainty regarding whether the district can support and enhance INFORM if these non-district personnel became unavailable.

Although those performing the administration of INFORM have a good relationship with TISS, the interactions and specific responsibilities of each group are not well defined, nor are they based on documented processes or procedures. Increased coordination and communication between the two groups should be initiated in order to transfer some of the critical knowledge to district staff in general, and TISS staff in particular. A CCSD employee should be designated and trained to perform the INFORM-related tasks as soon as possible. Written documentation should also be created to explain all data exchange processes (e.g., who is responsible, when does it happen, what is the data format) between various feeder (source) systems and INFORM.

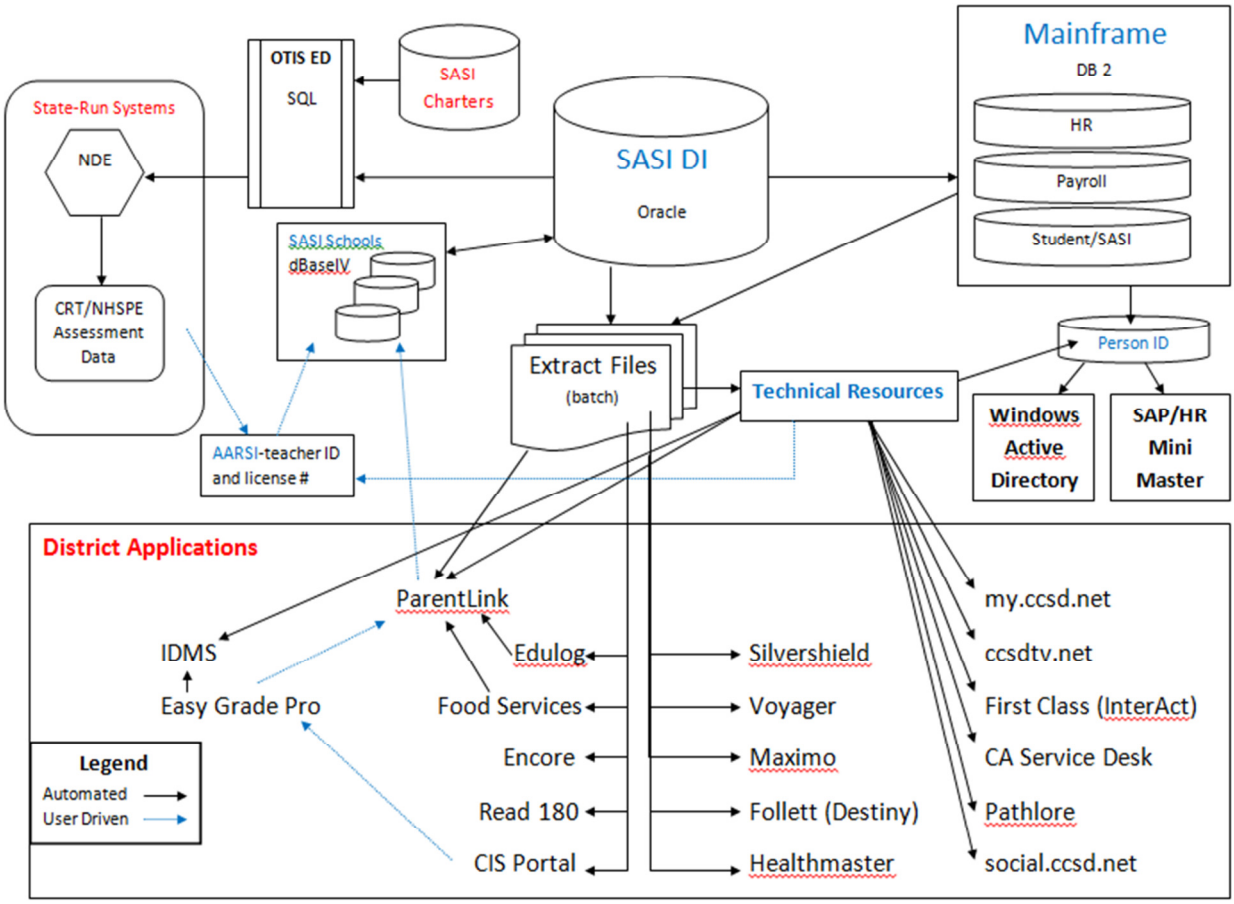
Data Integration Across All Mission Critical Systems

There is some integration among CCSD's mission-critical systems. However, many points of integration require manual intervention. For example, ParentLink, a critical system that enables parents to view their student's grades and other information requires a manual, labor intensive data transfer process from one system to another. Such manually initiated data transfers have a higher potential for error, and by definition cause some measure of delayed accessibility of the data in the receiving system. Other integrations are automated such as batch processes. These are typically initiated after other transaction

processes have been completed, or at a certain time of a day, week, or month. While batch processes are typically more accurate, complete, and consistent than a user-driven process, there may still be an issue with the timeliness of the data.

Figure 5-4.1 is an excerpt from a TISS presentation to the CCSD Board of Trustees in July of 2010. It illustrates the batch and manual data exchanges among some of the district's critical applications.

Figure 5-4.1 CCSD data/account management configuration



Source: TISS Division, 2011

The fact that CCSD enterprise applications reside in multiple database platforms makes data integration much more complicated.

Table 5-4.2 illustrates the critical district applications that reside in various database platforms.

Table 5-4.2. CCSD application software and database platforms

Owner	Application/Software	Database Platform
Finance	SAP	Oracle
HR (Licensed Personnel)	HRMS (In-House)	DB2
HR (Substitute Services)	Smart Find	MySQL
Payroll	Passport (In-House)	DB2
Student Data Services	SASI	Oracle/DB2
Special Education	Encore	MS SQL
Facilities	Maximo	Oracle
Transportation	Compass	MS SQL
Food Services	MCS Software	MS SQL

Source: TISS Division, 2011

Recommendation 5-4.1: Create and implement an enterprise data management framework.

As part of creating and implementing an enterprise data management framework the district should establish and document **data standards** and **data processes** for their critical enterprise data. Once data standards and processes are created and documented, TISS should be given the responsibility and authority to enforce them throughout the district. This authority should also include establishing roles of and responsibilities for of district staff with data management roles, regardless of the department in which they reside. Having clear and consistent roles and responsibilities for the technical staff that work with data is a very important part of an enterprise data management framework. Additionally, staff who work with data should have formal collaboration and communication avenues (such as periodic meetings and subject-specific professional development opportunities) to ensure that data-related processes and standards are being employed consistently throughout the district.

Data integration is another element of an enterprise data management framework. The district should improve integration among critical systems, minimizing the amount of user intervention that is required. The best way to achieve integration is to use a technology known as web services. Web services rely on a collection of small, commonly used, and well defined "services" that allow different systems to interact with each other through a common technical architecture known as a Services Oriented Architecture. There are third-party companies who have developed specialized software using web services to help school districts integrate large sets of legacy system data. For example, seven years ago, Fairfax County Public Schools (Virginia) had over 150 critical applications which were connected through various batch files and manual connections, much like CCSD has now. With the help of third-party web services software, their 150 applications are now integrated.

In addition to addressing data integration throughout the district, the district will be well-served by creating a single database reporting platform for non-instructional data collected to make timely and more accurate intelligent data-driven decisions. The district already owns SAP Business Objects, a powerful reporting toolset which can be used to access data that resides in a single database reporting platform. Once the prior recommendations regarding data standards are implemented, the district should create a consolidated reporting database on a single database platform and use the SAP reporting tool to provide the timely and accurate data necessary to make informed, data-driven decisions.

TISS does not have the requisite skills and experience to implement this recommendation internally. Consequently, outside assistance will be needed. TISS will need to be closely involved in its implementation and gain the appropriate skills and experience over time.

Fiscal Impact

This recommendation's fiscal impact has three components: (1) hire an internal Data Architect position to assist with the framework development and manage the district's various data bases on an on-going basis and a SAP business intelligence analyst to implement SAP Business Objects reporting toolset, (2) hire external consultants to provide technical assistance to develop the enterprise data management framework, and (3) purchase software, such as a third-party web service application.

The salary scale (inclusive of benefits) for a Data Architect Level IV, the level at which the review team recommends the district hire, is approximately $193,000 per year. For the SAP business intelligence analyst, the district should budget $153,000 in salary and benefits per support position per year. It is also recommended that the district hire a team of three consultants for a term of up to six months to assist with the development of the enterprise data management framework. The cost for the consulting team is estimated to be $700,000. The district should expect to spend up to $1,400,000 on third-party software, with an annual maintenance fee of $240,000.

Recommendation 5-4.1	One-Time (Costs) / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Consultant fees for development of enterprise data management framework	($700,000)	$0	$0	$0	$0	$0
Hire Data Architect and SAP Business Analyst	$0	($346,000)	($346,000)	($346,000)	($346,000)	($346,000)
Purchase a third-party web service application	($1,400,000)	($240,000)	($240,000)	($240,000)	($240,000)	($240,000)
Total	**($2,100,000)**	**($586,000)**	**($586,000)**	**($586,000)**	**($586,000)**	**($586,000)**

Student and Human Resources Information Systems

Recommendation 5-4.2: Procure and implement a robust and integrated student information system (SIS).

SASI, the district's current student information system, is no longer being upgraded or supported by its vendor. The continued use of unsupported software has some inherent risks and costs. These include the following:

- Operational stoppage – If there is an issue that causes the software to become unusable, the vendor is no longer responsible for fixing it. These types of repairs can be very expensive for the district.
- Regulatory requirement changes – When changes in laws necessitate that the software be updated to be brought into compliance, the district must absorb the cost to do so.
- Support burden placed on district staff – The CCSD help desk and technical support staff must research and resolve issues with the unsupported software. Over time, the ability of district support staff to resolve issues typically decreases.
- Integration issues – Even currently supported software bears some risk related to any interfaces they have with unsupported software.
- Reduced usefulness – Because new functionality is no longer being added to the software via product support, the usefulness of the software will decrease over time.
- Development costs – Should the district determine that additional functionality needs to be added by internal software developers, the cost to maintain the program can become quite high.

The district has taken steps towards replacing SASI but more work and a significant investment will be required. The review team endorses the district's efforts to pursue this needed system replacement.

Fiscal Impact

The fiscal impact for this recommendation has been modeled by using the costs obtained from comparable districts. The comparable districts' total costs were reduced to a five-year per student amount and then multiplied by 309,893 – the CCSD enrollment for 2010-11. The resulting amount of $23 million was within the range of estimates developed internally by CCSD.

Using an average of the comparable districts' licensing fees, estimated licensing fees for CCSD were calculated at $16 per student, or $4,958,288. Maintenance fees were estimated using an average of the same comparable districts (30 percent of licensing fees), with maintenance in the first year estimated at $1,487,486. Typically, these fees are increased each year by the vendor, so the estimated maintenance

for years two, three, four and five reflect 2.5 percent increases. The remainder of the $23,000,000 – or $10,222,996 – has been assigned to one-time implementation costs.

Recommendation 5-4.2.	One-Time (Costs) / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Procure and implement a robust and integrated SIS						
Licensing Fees	($4,958,288)	$0	$0	$0	$0	$0
Implementation Fees	($10,222,996)					
Maintenance Fees		($1,487,486)	($1,524,673)	($1,562,790)	($1,601,860)	($1,641,907)
Total	**($15,181,284)**	**($1,487,486)**	**($1,524,673)**	**($1,562,790)**	**($1,601,860)**	**($1,641,907)**

Recommendation 5-4.3. Fully implement the Human Resource and Payroll modules of SAP.

In *Section 3 – Human Resources* of this chapter, the impact of outdated information systems is discussed in great length. CCSD is planning to implement the SAP HR/Payroll system, but has not been able to commit funding to the project in its 2011-12 budget. Through implementation of other cost reduction measures contained in this report, CCSD should move forward with this implementation to improve the efficiency and effectiveness of the human resources function.

Fiscal Impact

The district has already initiated a project to select an outside firm to implement the SAP modules that have not yet been implemented. An estimated $10,000,000 in consulting costs and costs of district personnel associated with additional SAP module implementations are included in the fiscal impact summary below.

Recommendation 5-4.3.	One-Time (Costs) / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Implement integrated HR systems and streamline HR processes	($10,000,000)	$0	$0	$0	$0	$0
Total	**($10,000,000)**	**$0**	**$0**	**$0**	**$0**	**$0**

Selection of Instructional and Operational Software

The district's process for selecting and purchasing software products is highly decentralized. There are no formal procedures that require schools and operational departments to coordinate the selection and purchase of software products. As long as general purchasing policies are followed, and a school or

department has adequate funds in their budgets, they are generally free to purchase the programs they want.

There is a general expectation that purchases of major software systems should be coordinated with TISS to ensure system compatibility as well as to ensure that TISS can provide the necessary support for the system being implemented. For the most part, this coordination occurs, but in some isolated instances, it does not.

Purchasing and Warehousing Department staff have attempted to place some structure into the software selection and purchase process, but a structure has not been formalized through policy and procedure.

Many of the district's larger operations such as facilities and transportation maintain their own technology staff to provide Information Technology support to the departments where they reside. This support can include software purchases outside the purview or control of TISS.

Recommendation 5-4.4: Develop criteria to identify and select instructional and operational software programs.

CCSD is purchasing software products that are either not well-liked by users, duplicative of other products, or not compatible with the district's operating systems.

Analyses and interviews with district staff revealed a high level of autonomy related to the acquisition of instructional and operational software throughout the district. This autonomy, combined with a lack of a standard procurement process for software purchases, has led to unnecessary spending of school funds.

Interviews with district staff revealed:

- Purchases of software to support classroom instruction or student assessment often get shelved when the principal, or other instructional leader, who selected it transfers to another school or leaves the district.

- Identical or similar software programs are being purchased school-by-school rather than obtaining bids for bulk purchasing. The purchase of Rosetta Stone language instruction software is an example of this practice. Many purchases of this product have been on a school-by-school basis without getting bids for bulk purchasing. According to purchasing reports, the district has spent over $933,000 on Rosetta Stone products for the past two fiscal years (2009-10 and 2010-11).

- Software programs that are incompatible with the district's operating and infrastructure system are being purchased. In a recent example, the English Language Learners (ELL) program purchased a program which the district returned after it was discovered that it could not be operated in the current technology infrastructure. The ELL Department had not vetted the product with TISS prior to purchasing it.

- The Transportation Department purchased a major software routing program, COMPASS, without first consulting with TISS. The reasoning behind the decision to purchase the product without the knowledge of TISS was that the Transportation Department maintains its own computer and server technicians. However, when the time came to implement the software program, TISS had to become involved and its regular work flow was disrupted due to the unplanned nature of the implementation. The new transportation system is an additional program that TISS must now support, yet the department had no say in the product's selection or the timing of the implementation effort.

The district-developed document *Response to Instruction: A K-12 Multi-Tiered System of Support, A General Education Initiative* lists the reading and math programs adopted and supported by the district. This document lists 19 adopted reading programs and 37 adopted math programs for various grade levels (see Tables 5-4.3 and 5-4.4).

Table 5-4.3 CCSD adopted reading programs

Program	Grade Levels Using Program	Program Type[(1)]	Program	Grade Levels Using Program	Program Type[(1)]
Compass Learning	PK - 12	S	Voyager Passport	K - 5	I
Classworks	K - 8	S	Language!	6 - 12	I
Earobics Step 1-2	K - 5	S	Corrective Reading	6 - 12	I
Study Island	3 and 6 - 8	S	Voyager Journeys	6 - 12	I
Read Well	K - 5	S	Fast ForWord	K - 5	II
Fast ForWord	K - 8	S	Language!	3 - 12	II
Achieve 3000	K - 8	S	Read Well	K - 3	II
Burst	K and 1	I	Voyager Passport	K - 5	II
Fast ForWord	K - 5	I	Voyager Journeys	6 - 12	II
Harcourt Trophies Intervention	K - 5	I	Read 180 Enterprise Edition	6 - 12	II
Read 180 Enterprise Edition	4 - 12	I	Corrective Reading	6 - 12	II
Time Warp Plus	K - 5	I	System 44	6 - 12	II

Source: CCSD, *Response to Instruction: A K-12 Multi-Tiered System of Support. A General Education Initiative,* April 2010.

Note: [(1)] Key: S = Tier I Supplemental Program; I = Tier II Intervention Program; II = Tier III Intensive Intervention Program

Table 5-4.4 CCSD adopted math programs

Program	Grade Levels Using Program	Program Type[(1)]	Program	Grade Levels Using Program	Program Type[(1)]
Accelerated Math	K – 5	S	Fathom	9 – 12	S
Compass Learning	K – 12	S	GeoSketch Pad	6 – 12	S
Classworks	K - 5	S	Tinkerplots	6 – 8	S
FASTT Math	K – 8	S	Moogie Math	K – 12	I
Singapore Math	K - 5	S	Accelerated Math	6 - 12	I
Orchard Math	K – 5	S	Do the Math	K – 5	I
Standards Plus	K – 5	S	Standards Plus Intervention System	K – 5	I
Leap Track	1 – 5	S	Voyager Math	3 – 5	I
Voyager Math	1 - 5	S	Knowing Math	4 – 5	I
Number Worlds	K – 2	S	Understanding Math	K – 5	I
Mind Institute Program	K – 5	S	Compass Learning	6 – 8	I
Read It, Draw It, Solve It	1 - 5	S	Green Globs	9 – 12	I
Study Island	3 – 8	S	Myskills Tutor	9 – 12	I
Success Maker	K – 5	S	Super Math Tutor	9 – 12	I
Math by All Means	1 – 5	S	ALEKS	9 – 12	II
Understanding Math	K – 5	S	Algebraic KEAS	9 – 12	II
Acces	6 – 12	S	Cognitive Tutor	6 – 8	II
Brain Pop	6 – 12	S	I can Learn	6 – 12	II

Source: CCSD, *Response to Instruction: A K-12 Multi-Tiered System of Support. A General Education Initiative,* April 2010.

Note: [(1)] Key: S = Tier I Supplemental Program; I = Tier II Intervention Program; II = Tier III Intensive Intervention Program

When comparing these approved programs to a list of procurements made in fiscal year 2010-11, the review team found that the district purchased, in addition to the adopted programs, 10 reading programs and eight math programs. The combined cost of these additional math and reading programs is estimated to be $1.5 million in 2010-11. For fiscal years 2008-09 and 2009-10 similar practices were employed.

Tables 5-4.5 and 5-4.6 list the additional reading and math programs purchased for fiscal years 2008-09 through 2010-11.

Table 5-4.5. CCSD reading programs purchased in addition to adopted programs

Program	FY 2008-09 Cost	FY 2009-10 Cost	FY 2010-11 Cost
ReadingSmart	$4,250	$15,155	$24,775
Raz-Kids, Reading A-Z, Gizmos, Ticket to Read	0	163,942	65,120
Lexia Reading, Reading Plus	363,237	260,706	220,105
Rigby Reads, Destination Reading	0	0	44,610
Istation Reading Intervention	0	15,000	15,000
Reading Comprehension	0	0	41,647
STAR Reading, Accelerated Reader	188,436	234,495	617,675
Scholastic Reading	0	0	26,271
Academy of Reading Advantage	0	0	6,700
Reading Assistant	0	0	371,910
Access to Early Reading	0	7,559	0
Fluent Reader, My Reading Coach, RAPS 360	0	39,180	0
Read Naturally	0	4,355	0
Academy of Reading Advantage	12,500	0	0
Reading Blaster	2,800	0	0
Reading A-Z	9,427	0	0
Totals	**$580,650**	**$740,392**	**$1,433,813**
Percent Increase from prior year	**n/a**	**28%**	**94%**

Source: CCSD Purchasing and Warehousing Department, 2011

Table 5-4.6. CCSD math programs purchased in addition to adopted programs

Program	FY 2008-09 Cost	FY 2009-10 Cost	FY 2010-11 Cost
Carnegie Math	$0	$0	$24,998
DreamBox Learning	0	0	6,000
Edu2000	0	0	7,500
iLearn Inc.	0	0	17,220
IXL Math	0	0	7,600
Smartview	0	0	2,840
MCLASS	1,125	3,938	11,415
Mathematica	0	0	7,500
Academy of Math	0	32,320	0
STAR Math	900	21,506	0
MathFacts in a Flash	3,500	26,661	0
Mathpad	0	3,520	0
Design Science	1,453	0	0
Math Prep	3,964	0	0
Math Blaster	4,580	0	0
Gizmo	14,622	0	0
Math Bricks	4,750	0	0
Math Stories	1,380	0	0
Math Intervention	10,000	0	0
Totals	**$46,274**	**$87,945**	**$85,073**
Percent Increase from prior year	**n/a**	**90%**	**-3%**

Source: CCSD Purchasing and Warehousing Department, 2011

Unless approval and decision-making processes are put into place, this type of spending will continue.

The project team's analysis focused on reading and math programs; it did not include science, history, chemistry, business, career and technology, research and subscription services, or computer and technology education. Further review of procurement reports showed that in 2010-11 the district purchased seven different career and college-readiness programs at an estimated cost of $54,000; four online learning/credit recovery programs with an estimated to cost $380,000; three foreign language

programs with an estimated cost of $700,000; and four assistive technology programs with an estimated cost of $26,000.

In addition to the direct costs of software, there are other costs associated with the purchase of non-standard programs such as separate web hosting fees and professional development and training costs for using the programs.

The district uses a variety of assessment and reporting tools, primarily INFORM, AIMSweb, and Dibels, spending over $6.5 million on these systems in 2010-11. In addition to these assessment tools, district staff have also purchased a variety of stand-alone assessment tools. In 2010-11 the district purchased at least 15 different assessment programs costing over $1 million (Table 5-4.7 below).

Table 5-4.7. CCSD assessment programs purchased in addition to adopted programs

Program	Purpose	FY 2011 Cost
Archipelago Learning	Standards-based assessment	$569,964
Brainchild	Assessment	3,133
Cengage Learning	Assessment	6,760
AMC Anywhere	Math assessment	5,627
Educational Testing Service	Assessment	219,446
Functional Assessment Systems	Assessments	3,265
InfoSource	Technology assessment	14,783
Kamico	Standards-based assessment	31,185
Northwest Evaluation	Measures of academic progress	30,363
Renzulli Learning	Web-based assessment and differentiation	20,000
Criterion	Writing assessment	10,560
Teaching Strategies	ECI assessment	74,600
My Access	Writing assessment	19,340
Mindplay	Reading assessment	39,600
Write Tools	Writing assessment	4,489
Total		**$1,053,115**

Source: CCSD Purchasing and Warehousing Department, 2011.

Observations from these analyses support anecdotal information the review team gathered through focus groups and interviews that revealed that many instructional staff feel frustrated with the number

of new software programs put in place and the number of programs not used due to lack of support or direction.

The review team also heard from various managers in the district that when a software system or program is selected, schools and departments do not always adopt the new program, instead choosing to stay with an old program or purchasing their own outright. Examples of this situation include:

- The district adopted and purchased a new accounting software program to manage school banking; many schools did not want to convert to the new system and are still using the old system.

- The district has purchased several stand-alone inventory systems as well as time keeping systems. Departments purchasing their own stand-alone systems include Food Services, Maintenance, and Transportation.

The district currently does not use a comprehensive inventory system to track the software programs in place for instructional or operational purposes. In addition, cost data on instructional programs are difficult to obtain because of the way that district staff code expenditures. The primary reason for this is that the Grants Department chooses to code most software purchases to its instructional supplies expenditure code. However, this account code also contains other non-software expenditures, so isolating software expenditures is largely a manual process.

Developing an inventory process for both operational and instructional software, which should be searchable and available to all district staff, will help users determine what resources are already available in the district. The district's ERP system contains a tracking module called Trackables that could be modified to track software purchases. Once the Trackables system has been established and current software inventory data loaded, all future purchases of software should be entered automatically into the system at the time of purchase.

While various inventories of software programs exist in the district for specific purposes, there is no comprehensive database that is accessible to all employees. TISS could begin the inventory process by conducting an automated search of all computers connected to the network. While this will not include all computers in the district, it would be a good start for the inventory. Once complete, this information should be loaded into the Trackables system.

Once the software inventory database is complete or substantially complete, users in the district who wish to purchase a specific program can search the database to determine whether the district already owns the program, and if so, can investigate whether the product has available licenses, and whether the current owner/user is satisfied with the product's content.

The district should develop procedures that guide the selection and purchase of instructional and operational software. These procedures should address the following:

- Purchases of instructional software amounting to $10,000 or more, regardless of the funding source, should be approved first by the Curriculum and Professional Development (CPD) Department and then by TISS.

- Purchases of operations software amounting to $10,000 or more, regardless of the funding source, should be approved by TISS.

This added layer of review will help to ensure that the product being purchased is compatible not only with the district's infrastructure, but will also help to ensure that the product falls within the adopted or acceptable programs already existing in the district.

Fiscal Impact

Analysis resulting from this study identified $2.6 million of software purchases (reading, math, assessment programs) that were not in line with the standards or systems already in place in the district. Cost reductions associated with implementing this recommendation should be re-purposed to support additional licensing fees for software that does meet the standards and additional training to use it effectively. Accordingly, there is no net fiscal impact of this recommendation.

Educational Computer Strategists

CCSD employs 233 fully licensed teachers as Educational Computer Strategists (ECS). These technology-trained teachers work in the schools and assist other teachers and staff in their use of technology for daily student instruction.

ESCs work under the direction of principals and other site administrators to provide professional development and level one technical support, maintain appropriate and accurate records, and accomplish the objectives set forth in site technology plans. Other responsibilities of an ECS include:

1. Create and maintain systems and procedures for scheduling, using, and maintaining technology equipment.
2. Create and maintain systems and procedures for troubleshooting and reporting problems to User Support.
3. Perform the site-based management of the school's network.
4. Maintain accurate records, including but not limited to, for professional development, inventory of hardware and software, and work orders.
5. Serve on the site technology committee and facilitate the development and revision of yearly technology plans to support the school improvement plan.

School principals are responsible for hiring and supervising the ECSs in their own schools. ECSs might coordinate with the district's help desk technicians if they need assistance, but they report to their individual principals. According to district staff, there is no central coordinator of the ECSs. District staff

noted that principals are encouraged to select an ECS on the basis of their professional development skills first, based on a belief that technical skills can be easily acquired.

Recommendation 5-4.5: Phase out Educational Computer Strategist positions and re-purpose through separate functions for technical and instructional support.

The ECS position is based on a model that is rapidly becoming outdated. It assumes that an ECS will provide on-site support and professional development to all the teachers in their assigned school, helping them to effectively integrate technology into classroom instruction and giving classroom demonstration lessons on how to use computer technology to augment and enhance teacher lessons and content mastery. However, as often happens with this kind of position, ECSs spend a significant portion of their time providing basic troubleshooting assistance. Table 5-4.8 provides a breakdown of the deployment of the ECSs and an estimate of how much of their time is spent providing Level One technical support. The district has not undertaken any studies to definitively determine how ECSs spend their time, although district staff have discussed doing some type of study in 2011-12. A central office administrator who works regularly with the ECSs estimated that the ECSs in the high schools spend more than half of their time providing Level One technical assistance. Those in middle and elementary schools spend less of their time on technical assistance.

Table 5-4.8. Allocation of educational computer strategists

School Level	ECS FTE	Total Salary (excluding benefits)	Estimate of Time Spent on Level One Technical Support
K-5	124	$7,561,088	35%
6-8	55	3,412,237	50%
6-12	3	213,859	60%[1]
9-12	40	2,385,785	70%
Alternative	9	611,840	35%
Location not found	2	140,506	35%[2]
Total	**233**	**$14,325,315**	

Source: CCSD Instructional Technology; CCSD salary data, 2011

Note: [1]Estimate based on staff figures for middle and high schools

[2]Estimate

The district has a User Support Services Division that provides technical assistance to all staff, including school-based staff. The division has both a help desk and field technicians. If a technical issue cannot be resolved over the phone by the help desk, a field technician is dispatched. In 2010-11, User Support Services resolved 51,849 trouble tickets (including incidents, problems, and requests) with 19 staff. Of those, User Support Services resolved 35,311 in less than 10 minutes. The district does not collect

statistics on the number of technical issues the ECSs resolve without User Support Services assistance, so it is unknown how many more trouble tickets would be sent to User Support Services if the ECSs were not providing some on-site assistance.

Although the field is evolving, some recent research points away from the ECS model. In 2005, one study found that, rather than having an on-site dedicated to providing support for technology integration, a "collaborative apprenticeship" model appeared to hold promise. Such a model features reciprocal interactions, essentially a structure whereby peer teachers learn from each other through modeling, collaboration, and coaching. Because the teachers in collaborative apprenticeships know they are working with peers who also have teaching loads, the tendency is to use the time they have together to focus more on technology integration rather than low-level technical assistance.[51]

In 2006, another study reviewing the barriers to effective technology integration in the classroom found that a lack of professional development can be one of several barriers. The research showed that effective professional development related to technology integration: focused on content; included "hands-on" opportunities; and, was highly consistent with teachers' needs.[52] However, this professional development does not have to be offered in the teacher's own classroom to be effective. Moreover, given the need to focus on content, it is unlikely that an ECS with a background in math would be as effective in promoting technology integration with an English teacher. A need to focus on content suggests a more centralized approach to professional development related to technology integration, in a manner whereby all teachers of similar content can work together using the same tools and learning objectives.

CCSD ECS positions should be re-purposed to clearly separate the required functions of technical assistance and instructional support with technology integration in the classroom. The instructional support should be coordinated through the district's newly established performance zones and aligned with the district's overall academic strategies.

To address the issue of lost professional development opportunities, the district should develop a technology position within Curriculum and Professional Development to serve as an internal consultant to professional development designers. This position would help ensure that technology tools and their usage are embedded in all professional development.

Fiscal Impact

No fiscal impact is expected for this recommendation, as all cost reductions are expected to be reinvested. Re-purposing the 233 ECS positions would allow CCSD to re-allocate $20.67 million ($14.32 million plus benefits) per year to separate functions for field technicians and instructional support for

[51] Glazer, E., Hannafin, M. J., & Song, L. (2005). Promoting technology integration through collaborative apprenticeship. *Educational Technology Research & Development*, 53, (4), 57-67.

[52] Hew, K. F., & Brush, T. (2006) Integrating technology into K-12 teaching and learning: Current knowledge gaps and recommendations for future research. *Educational Technology Research & Development*, 55, 223-252.

the integration of technology into classroom instruction. Any funds not used for these purposes could be allocated to dedicated teacher positions at schools. The district would need to hire at least 52 additional field technicians, as shown in Table 5-4.9.

Table 5-4.9. Estimate of need for additional field technicians

School Level	ECS FTE	Estimate of Time Spent on Technical Support	Estimated ECS FTE Spent on Technical Support	Estimate of FTE Field Technicians Needed[3]
K-5	124	35%	43	22
6-8	55	50%	28	14
6-12	3	60%[1]	2	1
9-12	40	70%	28	14
Alternative	9	35%	3	1
Location not found	2	35%[2]	1	0
Total	**233**		**105**	**52**

Source: CCSD Instructional Technology

Note: [1]Estimate based on staff figures for middle and high schools

[2]Estimate

[3]Assuming trained field technicians to be twice as efficient in Level One support issues

With such a large addition of technical staff, the district will likely need two additional technician supervisors.

An additional 52 technicians will require $4.16 million per year. The supervisor positions could likely be filled at approximately $100,000 each in salary and benefits. The proposed internal consultant for professional development position could likely be filled at approximately $100,000 in salary and benefits. The remainder of the cost reductions should be re-purposed to instructional technology support and any remaining amounts to school-based teachers.

Section 5 – Facilities Management

The CCSD Facilities Division is responsible for managing all facilities-related activities for the school district. This includes maintenance, construction, operations and energy management activities. For purposes of this study, the review team focused on operating areas to identify efficiencies that could benefit the district's General Fund. To this end the review team assessed the maintenance, energy management, and custodial functions of the Facilities Division. These functions are responsible for maintaining the environment in the facilities for students and staff and to ensure all building functions are in working order. The mission of the Facilities Division, which covers all the reviewed departments, is:

> *To provide "best in class" educational facilities support services with demonstrated cost effectiveness second to none - ensuring clean, comfortable, safe, and educationally effective facilities are provided in the right quantity and location to meet the needs of Southern Nevada's children and the professional staff and support systems that serve them.*[53]

The geographical area served by the district encompasses the entire county, approximately 7,910 square miles, and includes the Las Vegas urban area as well as remote, rural areas in mountainous and desert terrain. CCSD has 392 facilities requiring maintenance, consisting of almost 35 million square feet. The Maintenance Department (including the Landscaping and Grounds section of the Facilities Division) had 676 staff in 2010-11, of which 476 were devoted to building maintenance. Table 5-5.1 provides a summary of key metrics for CCSD's facilities management function.

Table 5-5.1. Facilities management key metrics summary

Data Item	FY 2010-11
School facilities (sites) to maintain	357
Administrative facilities (sites) to maintain	35
Square feet (SF) of building space	34,927,142
Total maintenance & landscaping/grounds staff	676
Total maintenance & landscaping/grounds costs	$55,553,723
Square feet maintained per technician	51,775
Total energy costs	$49,843,461

Source: CCSD Facilities Division, 2011

The Maintenance Department has gone through several recent initiatives to improve and lower the cost of its operations. The Maintenance Department led CCSD in the implementation of International Organization of Standardization: 9001 2000 certification in 2004 with all other facilities management

[53] http://ccsd.net/directory/facilities/

employees completing training by 2010. This certification focuses on repeatable and efficient work processes and, through this process, the department has identified over $15 million in cost reduction ideas in the last six years. These ideas included roof restorations, salvaging parts, rebuilding parts and identifying vendor billing errors. The department also implemented a new computerized maintenance management system (CMMS) in the last few years to assist in organizing work and making work activities more efficient. The department has performed its maintenance activities well even though its funding is less than its industry peers. Due to repeated budget cuts, the department enters 2011-12 with approximately 15 percent less staff than it had three years ago. These accumulated cuts create an environment where the required maintenance activities to effectively maintain the CCSD facility assets cannot be completed. The effects of funding and staffing shortfalls may not be apparent in the short term, due to the number of new facilities (requiring less maintenance) brought on-line in the last 10 to 15 years, and the robust capital replacement program that has existed for 20 years and just recently came to a close. If these conditions are not corrected, and additional funds or efficiencies are not identified, maintenance and equipment replacement costs will accumulate and accelerate in the next two to five years and service levels will likely be affected.

In 2010-11, the Landscaping and Grounds Department provided services at costs comparable to its peer benchmarks as discussed later in the section. However, the group will be eliminating approximately 28 percent of its staff going into the 2011-12 year, due to recent budget cuts. Additional funding or additional efficiencies need to be identified to fill this gap or issues with the appearance of the grounds will become apparent immediately. The Landscaping and Department has also performed water management initiatives over the past few years with success. Many areas are being transitioned to desert landscaping versus vegetation to drastically reduce water use.

The Energy Conservation Department manages all energy use throughout the district. The current energy use of approximately 55.9 kBtu/square foot/year[54] is comparable to peer benchmarks of 53.7 kBtu/square foot/year[55]. This department has performed a number of energy savings initiatives over the past several years which have reduced consumption from 66 kBtu/sf/yr to the current levels. These include an incentive-based behavioral program for individual schools to be rewarded for energy efficiency, which saved over $10 million in 2010. The department also implemented a number of new technologies including lighting retrofit projects and installation of photovoltaic (solar) cells panels. The challenge for this department is to continue to identify cost effective energy savings opportunities to continue to lower energy use and to obtain funding for these projects under the current fiscal constraints faced by the district. Since energy conservation has generated significant attention in the industry over the past few years, there are always new opportunities to evaluate.

This section identifies cost reduction opportunities in the maintenance, landscaping and grounds, energy conservation and management, and custodial functions at CCSD. The review of these functions commenced with an overall budget performance as benchmarked against the Association of Physical

[54] CCSD Energy Conservation Department, 2010-11

[55] Council of Great City Schools – A Report of the Performance Measurement and Benchmarking Project, 2009

Plant Administrators (APPA), the Council of Great City Schools peers[56], and against best practice standards developed by Jacobs Engineering. Staff interviews, process reviews, and data analysis of the respective operations were performed to identify best-practice processes that could improve the efficiency of the organization. Any cost reduction initiatives recently implemented by CCSD were not included in this report. This analysis was developed to provide an estimate of the efficiencies that could be realized if additional best practice processes were implemented.

Following are specific recommendations for improvement, grouped by individual function. The CCSD maintenance and landscaping and grounds functions are consolidated together separately from the energy conservation and management and custodial functions. It is assumed that all cost reductions generated by maintenance and landscaping and grounds efficiency improvements will be reinvested in the district's unfunded needs in these areas.

Table 5-5.2. Summary of recommendations

Recommendations	Priority	Timeframe	Net Five-Year Fiscal Impact	Major Investment Required
Maintenance/Landscaping and Grounds				
5-5.1. Increase wrench time of technicians	High	2012-14	($800,000)	Yes
5-5.2. Increase productivity of facilities technicians and re-purpose cost reductions to support preventive maintenance	High	2012-14	($450,000)	Yes
5-5.3. Outsource selected landscaping tasks to perform additional needed services at the same cost	Med	2012-13	$0	No
Energy Management – All Recommendations Combined				
5-5.4. through 5-5.15. Sum of Energy Conservation Measure Opportunities (some individual opportunities may overlap with others)	Med	2012-22	$41,797,469	Yes
Custodial Services				
5-5.16. Outsource custodial services operation to a private service firm.	High	2012-14	$46,800,000	No
Totals			**$87,347,469**	

Maintenance, Landscaping and Grounds

CCSD's maintenance and landscaping and grounds 2010-11 total expenditures were approximately $1.59 per square foot, $0.12 less than the Council of Great City Schools peer benchmark of $1.71 per square foot. CCSD's Maintenance Department also performs additional activities (e.g., office equipment repairs)

[56] The Council of Great City Schools is a coalition of the nation's 65 largest urban school districts.

and replaces large equipment (e.g., chillers worth more than $10,000) that most school systems typically do not include in their maintenance budgets. The CCSD budget was normalized with peer benchmarks and developed an effective budget of $1.52 per square foot, $0.19 or 11 percent less than the peer district benchmark, as shown in the table below.

Table 5-5.3. Maintenance and landscaping and grounds budget summary

Budget	Amount	$/SF	Source
2010-11 Maintenance Expenditures	$44,920,752	$1.29	CCSD Facilities Administration Department
2010-11 Landscaping and Grounds Expenditures	$10,632,971	$0.30	CCSD Landscaping and Grounds
Total 2010-11 Maintenance and Landscaping and Grounds	$55,553,723	$1.59	CCSD Landscaping and Grounds
Adjustments to normalize to benchmarked peers	$2,385,315	$0.07	Removed Office and Machine Repair, Industrial Arts Departments and Capital Expenditures > $10,000.
Total 2010-11 Maintenance and Landscaping and Grounds Expenditure – Normalized	**$53,168,408**	**$1.52**	**Normalized services included to compare with Peer Benchmarks**
Council of Great City Schools Maintenance Budget Benchmark		$1.71	Council of Greater City Schools, 2009 - A Report of the Performance Measurement and Benchmarking Project (11% greater than CCSD normalized costs)

Source: CCSD, 2011

While the district spends less per square foot on maintenance activities than benchmarked peer school districts, CCSD's own analysis and the review team's observations indicate that there are significant opportunities for productivity improvement and cost reductions. However, the district is significantly underfunding preventive maintenance as described later in this report, to the extent that identified cost reductions should be reinvested. The end result will be a more effective maintenance function operating at a similar budget level as it does currently.

A summary of efficiency improvements for maintenance, landscaping and grounds are provided in Table 5-5.4. The majority of the cost to implement these improvements relates to outside assistance needed for technical and implementation support. The total investment anticipated for these recommendations is $1,250,000 with an expected net return of $19.3 million over five years. It is recommended that the efficiency improvements in this section be re-purposed to support a more effective preventive maintenance program and meet additional landscaping and grounds needs.

The results of implementing the recommendations presented in this section will substantially increase the effective number of technician work hours, as reflected in Table 5-5.4. Once these improvements

are implemented, and preventive maintenance is enhanced, a better determination of an adequate maintenance budget level can be determined.

Table 5-5.4. Summary of increased technician hours from improvements

Improvement Area	Additional Technician hours	Annual Reductions@ $25/hour	Percent Increase
Wrench time improvement	90,500	$2,262,500	44%
Productivity Improvement	74,209	$1,855,225	36%
Landscaping – Outsourcing efficiency	18,600	$465,000	10%
Totals	**164,709**	**$4,582,725**	

Notes: 1. Cost per hour = $25/hour (base + benefits) for technicians

2. Wrench time improvement hours calculated from Table 5-5.5.

3. Productivity improvement hours calculated from Table 5-5.6.

Following are descriptions of each recommendation along with suggested implementation strategies.

Recommendation 5-5.1.Increase wrench time of technicians.

"Wrench time" represents the percentage of time spent by maintenance staff performing maintenance activities at the work location. This is distinguished from "windshield" time, representing driving time and other activities not involving the performance of maintenance work. The average wrench time percentage for general maintenance technicians (includes CCSD's maintenance zone technicians) is approximately 42 percent (3.15 hours of wrench time during a 7.5 hour work day) at CCSD. This percentage is based on a CCSD sample of approximately 140 technicians (44 percent of the 315 CCSD technicians). Jacobs Engineering best practice for wrench time is approximately 60 percent (or 4.5 hours of wrench time during a 7.5 hour work day) for general technicians (Mitchell, 2006).[57]

CCSD maintenance staff are spending an excessive amount of time entering information into the CMMS, reducing the amount of time spent at the work place. During this study a number of technician groups were observed during the mobilization and de-mobilization stages of the day. This effort took a total of approximately 1.5 hours daily, mostly due to planning and work order entry. Mobilization/de-mobilization in best practice maintenance organizations take approximately 45 minutes (Mitchell, 2006)[5].

The district is in the process of deploying a four-quadrant organizational model to reduce the time needed by technicians to drive to work locations. This model is beneficial for general maintenance services and will decrease windshield time, thereby increasing wrench time.

[57] Jacobs Engineering best practices; Mitchell, J.S. (2006). *Physical asset management handbook* (4th edition). Clarion Technical Publication.

Ordering parts also demands too much time of CCSD's maintenance technician staff. CCSD's Purchasing and Warehousing Department represented that virtually all materials and supplies are ordered "free-text," which requires buyer processing and approval for all transactions. Based on CCSD estimates, the time between ordering and receiving of free-text materials and supplies, including the processing time, is approximately 2.5 days. Best practice maintenance organizations have up to 90 percent[5] of material and supplies ordered through pre-negotiated suppliers requiring minimal technician ordering time and buyer interaction. Additionally, best practice maintenance organizations have processes to order and receive the material and supply delivery on the next day[5]. The cost reductions related to this recommendation is in the form of additional time that can be spent performing repairs. Bulk pricing from pre-negotiated suppliers may save CCSD some money, but the more significant impact will be to free up maintenance staff time for actual maintenance work, and to speed up delivery of materials and supplies.

The following strategies can be applied by CCSD to implement this recommendation. The first step would be to perform an industrial engineering study of technician time. To gain greater confidence regarding where the technicians spend their time in all departments, a "time and motion" study is recommended to identify all of the activities the technicians need to perform (or are performing) to complete work and the time associated with these activities. Once this has been accomplished, detailed implementation strategies by department can be finalized and prioritized based on the estimated cost reductions.

Once a time and motion study has been completed, the following process and organizational modifications can be implemented to improve the wrench time of the technicians.

1. **Implement a geographically dispersed organization**. The district should move forward with its implementation of the four-quadrant geographic model that is currently underway. Initially, the model should be implemented for general zone technician-related work. Additional analysis should be performed to determine if specialty trades should be centralized or geographically dispersed. The analysis should include the impact on equipment utilization.

2. **Implement supply management performance improvements**. The following strategies should be considered to improve the efficiency of supply management performance.

    - Develop a supply management strategy that defines the various procurement actions and process changes that need to occur with the objective of reducing or eliminating time required for technicians to obtain the required materials/supplies at a minimal cost to CCSD.

    - Identify and implement more blanket pricing contracts with vendors that can manage inventory along with stocking clerks and consignment inventory. Two current examples include Grainger (currently managing plumbing stock) and Fastenal (fasteners and maintenance supplies).

- Implement an effort to place part information into CMMS that can be translated into an SAP catalog. A translation program linking CMMS (Maximo) and SAP will need to be written. This will allow parts to be ordered the same day. This process was recently started but due to funding constraints was not completed.
- Review inventory stock and dispose of stock items that will not be used, in order to make room for additional stock items
- Assign dedicated shop staff to place orders for specialty equipment. One primary person should be designated for each shop.
- Develop a longer term strategy to have procurement resources order and kit parts for specific work tasks.

3. **Minimize CMMS (Maximo) data entry by technicians**. This strategy can be accomplished in two phases. In the short term, CCSD should phase out data entry by technician staff and migrate to this work being done by administrative staff. Second, the district should implement technology in the field, such as Personal Digital Assistants (PDA) that would enable technicians to input data at the point of origination that directly connects to the CMMS. CCSD has had difficulty implementing these types of technology in the past, but recent rapid advances in the capabilities of inexpensive handheld devices (including iPhone and Blackberry applications) would aid in implementation in the field.

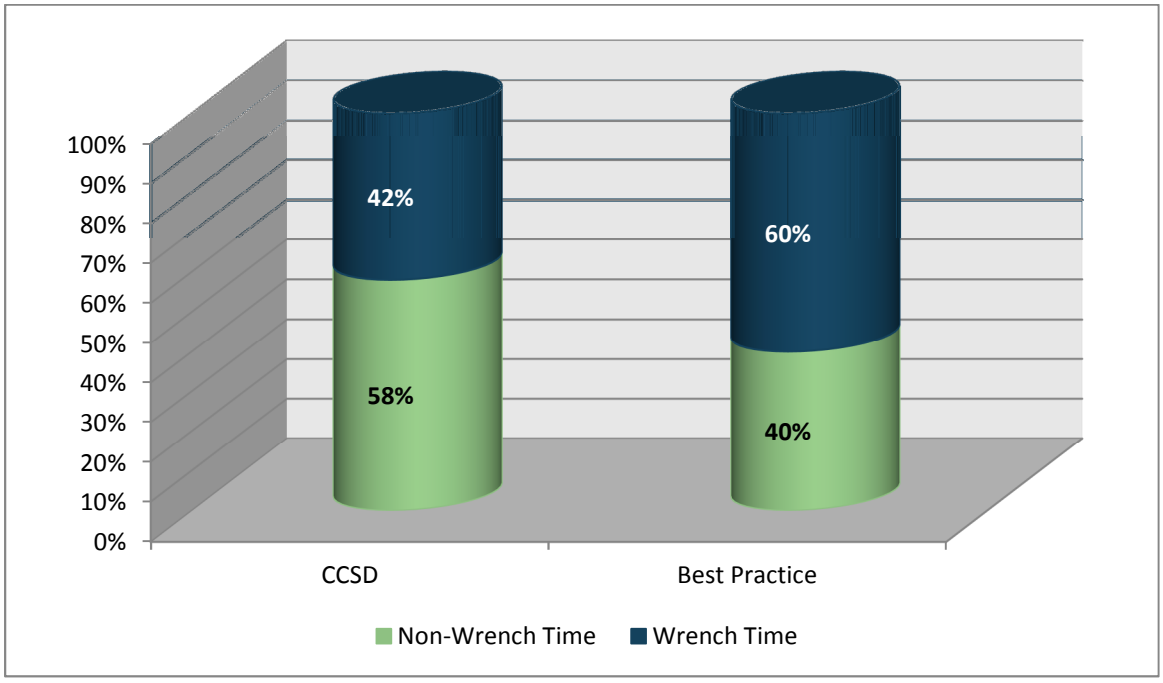
4. **Implement an equipment tracking system.** An equipment tracking system will help limit the amount of time spent locating and checking out equipment. Under current practice, CCSD technicians spend an unnecessary amount of time calling multiple sources to determine the location and availability of equipment. This is a straightforward process and can be implemented internally.

5. **Implement a more formal equipment rental process where equipment is checked out and returned**. The CMMS has functionality that can assist with the equipment rental process. Utilization of this system will assist the technicians in quickly obtaining rental equipment needed and will assist in increasing wrench time. This is a straightforward process and can be implemented internally.

6. **Implement process to add parts information into CMMS.** Current equipment assets are being entered on work orders; however, there are no parts lists associated with the assets or the buildings. The CMMS has the capability to build parts lists “on the fly” whenever a part is used. Having a parts list for an asset or a building takes the guesswork out of determining which parts are needed for a work order. The parts can then be looked up when preparing for the next day. This functionality minimizes the amount of time needed to identify and obtain parts required for a work order. For preventive maintenance work orders, the needed parts can be built into the job plan.

Through the implementation of several practices and tools recommended in this section, CCSD can increase its wrench time by approximately 18 percent (from 42 percent) to meet the best practice benchmark (60 percent) as reflected in the Figure 5-5.1 below.

Figure 5-5.1.Maintenance technician wrench time



Source: CCSD, 2011

Note: 1. Percentage are based on a 7.5 hour work day

2. Non-wrench time includes mobilization, demobilization, travel, supply management, and other related activities.

In summary, bringing CCSD maintenance staff wrench time up to benchmark standards would result in a 90,000 hour, 44 percent increase in maintenance productivity. Table 5-5.5 provides the calculation of the additional productivity.

Table 5-5.5. Wrench time improvement – Man-hour analysis

Annual Technician Man-hours 7/1/10 – 6/30/11	Current Technician Hours Wrench Time @ 42% 7/1/10 – 6/30/11	Best Practice Technician Hours Wrench Time @ 60%	Additional Hours Increase	Percentage Increase
494,724	206,334	296,834	90,500	44%

Source: CCSD Maintenance Department, 2011

Note: Wrench time sample extrapolated to all technicians (sample = 140, total = 315)

Fiscal Impact

Investments will need to be made by CCSD to achieve the expected cost reductions resulting from this recommendation. CCSD will need to commission an industrial engineering study to specifically determine and categorize the factors causing reduced wrench time so that they may be addressed in priority order. The results of this report will provide more specific detail on technician "non-wrench" time. The approximate cost of a study of this nature is $75,000.

As a result of data identified in the industrial engineering study, CCSD will need to develop and implement new processes in the organization. All costs discussed in this section are estimated based on CCSD utilizing external consultants. The approximate cost of process development and implementation is $350,000. This cost does not include the geographically dispersed strategy or mobile technology. The geographically dispersed strategy is excluded because the CCSD Maintenance Department is already in the process of rolling this program out. The technology is excluded because it is not a primary strategy as discussed earlier in this report.

CCSD supply management will need to implement supply management best practice processes and software programs with the assistance of external consultants (approximate cost totals $250,000). CCSD's in-house staff "tiger team" should assist the consultants in this supply management effort. In addition, CCSD should develop CMMS processes to streamline technician data entry. The approximate cost of this effort would be $125,000 and would include implementation assistance by external consultants. Investments needed to achieve the projected five-year cost reductions for Recommendation 5-5.1, total $800,000.

It is assumed that the $2.26 million in efficiency gains (90,500 hours x $25 per hour average pay and benefits) will be reinvested in the district's preventive maintenance program. Accordingly, the net fiscal impact for the next five years is projected to be zero.

Recommendation 5-5.2: Increase productivity of facilities technicians and re-purpose cost reductions to support preventive maintenance.

The productivity of technicians while performing work activities can be improved by approximately 25 percent. This efficiency figure is based on the evaluation against best practices and prior facilities maintenance performance improvement experience. Implementing this recommendation will improve

the productivity and efficiency of the technicians during the actual wrench time so that they are able to complete more work orders per hour of work. For clarification, the wrench time and productivity improvements are independent from each other. An example of productivity – bundling preventive maintenance (PM) with scheduled corrective maintenance (CM) work at a specific location will allow technicians to complete two work orders at a specific location instead of one – leveraging the time at a specific work location and increasing the work order per hour completion efficiency of the technician.

To ensure that facilities are maintained effectively and in the most efficient manner, maintenance work should involve PM activities in addition to CM activities. Best practices suggest that 70 percent (Mitchell, 2006) of total maintenance time be devoted to preventive maintenance. CCSD peer organizations spend 56 percent (Abate, Towers, Dotz, Romani, & Lufkin, 2010) of the time on preventive maintenance. According to CCSD records, the district spends only 9 percent of staff time on scheduled preventive maintenance, and many needed PM tasks are not completed. A higher percentage of preventive maintenance enables operations to be more proactive in the planning and performance of maintenance work, resulting in a more efficient operation and a reduction of accumulated deferred maintenance in the future.

The impact of the low amount of time spent on preventative maintenance at CCSD is not yet apparent, as most of the district's facilities were constructed during the past 15 years. However, not completing this work could have a significant negative impact on the condition of CCSD facilities if not corrected in the next 3 to 5 years.

The CCSD Facilities Division has a robust CMMS. However, information processes have not been fully developed and implemented to leverage this system to support the field activities. For example, preventive maintenance, planning tools, and performance reporting are CCMS features not fully deployed at the supervisor level. Not all preventive maintenance has estimated work hours. Tools do not exist to monitor the performance of technicians or departments. Finally, CCSD building and HVAC technicians are processing preventive maintenance work orders using manual lists or spreadsheets.

As a result of system underutilization, CCSD is limited in its ability to manage performance. It is not apparent that a formal performance management system is in place and used to manage the performance of the organization – aligning organizational objectives with technician work targets. There is also limited ability to manage the performance of technicians in the field – both disciplinary action and rewards. High levels of organizational performance can only be attained if supervisors can manage the performance of employees using objective performance data.

Other observations are presented below:

- The backlog of incomplete preventive maintenance work orders cannot be assessed due to inadequate records.
- The current a backlog of corrective work orders totals approximately 25,000 hours.

- The majority of the maintenance work activities are unplanned. The review team did not find supervisors or technicians developing day-ahead planning assignments for work orders in any department observed. This is an issue as research shows that emergency work orders (un-planned work) cost 2 to 3 times that of planned work orders for the same work activity. Planned work is significantly more efficient and costs less to complete, and firms following best practices plan over 85 percent (Mitchell, 2006) of their work.[58]

- Currently, according to the CCSD Work Management Group (WMG), priority two work orders are responded to in 3.74 hours, while priority one work orders are responded to in 2.9 hours. CCSD data reflects that all priority one and two work orders are treated as unplanned (same day) emergency work orders. Priority two work orders are required to be responded to by the next day, and therefore, can be planned. The maintenance organization can improve productivity by improving its focus on managing work order priorities. For example, maintenance shop staff reported that work orders are made a priority one to please school administrators when the work should be planned as a priority two or priority three work order based on the district's established criteria for work order priorities.

By adopting these recommendations, the review team estimates that the productivity of technicians while performing work activities can be improved by approximately 25 percent based on an evaluation against[59] best practices and prior facilities management performance improvement experience. This effort will improve the productivity and efficiency of the technicians during the actual wrench time so that they are able to complete more work orders per hour of work over time.

Combining efforts to increase total wrench time while also increasing the productivity of technicians during wrench time will lead to a significant increase in the total number of maintenance hours performed each year. Table 5-5.6 illustrates this impact. Through the implementation of specific strategies, CCSD could increase its productivity to perform an additional 74,000 of work with the same number of employees.

Table 5-5.6.Technician productivity analysis

Annual Technician Man-hours	Productivity Improvement of 25% - Additional Man-hours	Effective Man-hours due to 25% Productivity Improvements
296,834	74,209	371,043

Note: 25 percent Improvement target based on experience with similar organizations and review of CCSD work processes.

The following strategies can be applied by CCSD to implement this recommendation. The estimated time

[58] Jacobs Engineering best practices

[59] Jacobs Engineering best practices

1. **Implement a work planning and scheduling (work management) strategy**

   - Pre-schedule the next day's work for each technician, every day.
     - All supervisors should provide planning training and assign work orders to individual technicians. Consideration of skill level, grouping of work orders in selected location, and grouping two, three, and four priority work orders for efficiency needs to occur.
     - All technicians should be required to attend planning training to develop "day ahead" work plans. When arriving at end of day, technicians should review work orders provided by the supervisor and organize parts, materials, supplies and equipment for next day. This results in a faster start the next morning.
   - Maximize the use of the CMMS system.
     - Preventive maintenance work orders need to be developed for all required equipment with job plans and estimated completion hours.
     - All preventive maintenance work orders should be processed through the CMMS.
     - Required deferred maintenance work is not currently being entered into the CMMS. This needs to be done so that the organization captures all work activities in a single information management system.
   - Require preventive maintenance activities to be completed once new productivity improvements are implemented. The best way to reduce the quantity of unplanned work is to complete planned work before there is a failure. Preventive maintenance work needs be assigned a high enough priority to enable it to be scheduled along with other types of work orders.
   - Review work order priority methodology. Priority one work is expensive and disruptive compared to planned work. CCSD should review of all the priorities taking the following into consideration:
     - Priority one definition should be understood by both end users and technicians. The current culture of upgrading lower priority work orders to priority one status simply to please end users should be stopped.
     - Priority two work needs to be performed the next day and integrated into the next-day planning process.
     - Evaluate whether zone maintenance staff can respond to most emergency work in an area, in lieu of core specialized trade technicians.
     - CCSD's priority system goes from Priority two (next day) to Priority three (30 days). A five-tier system should be considered with a priority of 14 days for preventive maintenance work.

2. **Implement performance management reporting and monthly performance reviews of operations**. CCSD should implement shop-level reports (example reports provided below) to provide real-time information to manage the performance of the organization.

    - Work backlog reports – by shop
    - Work aging reports – by shop
    - Average parts delivery times
    - Planning work index (how many work orders are planned as a % of total work orders)
    - Scheduling efficiency index (how many work orders are worked to plan)
    - Work orders by technician and by shop

3. **Implement a process to monitor the execution of work efficiency by technician (performance management)**.CCSD should provide estimates on the average amount of time a job should take on job plans and work. Supervisors should review the reasons for deviations over 25 percent and create staff performance reports by work task activity. In addition:

    - Deviations under the average time should be reviewed for efficiencies that can be used to improve everyone's efficiency – and internally share best practices.
    - Consistent deviations over the average should be reviewed for any impediments to executing the work.
        - Identify barriers that can be removed to improve efficiency
        - Provide productivity targets for all departments and individual technicians
        - Assess management's ability to discipline technicians for poor performance.
        - Implement a rewards program for high performers.

Fiscal Impact

All costs discussed in this section are estimated based on CCSD utilizing consultants external to CCSD that have knowledge of best practices and can implement changes into an organization. CCSD will need to invest approximately $300,000 to develop strategies and implement the work management best practices presented in this recommendation. The development and implementation of performance management-related implementation strategies (including best practices, metrics, reporting, etc.) is estimated to cost CCSD approximately $150,000. This includes work process development and implementation with the assistance of an external consultant. One-time investments needed to achieve the projected five-year cost reductions related to this recommendation total $450,000. Efficiency gains based on more effective use of maintenance staff time will free up approximately $1.85 million in annual cost reductions (74,209 hours x $25 per hour average pay and benefits). These efficiency gains should be re-purposed to support underfunded preventive maintenance activities.

It is assumed that the $1.85 million in efficiency gains will be reinvested in the district's preventive maintenance program. Accordingly, the net fiscal impact for the next five years is projected to be zero.

Recommendation 5-5.3: Outsource selected landscaping tasks to perform additional needed services at the same cost.

At CCSD, the majority of landscaping activities are currently performed by in-house staff. The Landscaping and Grounds Department has reduced its staff by 28 percent resulting in all required services not being provided. Prior to this recent reduction, the cost of providing landscaping service at CCSD was approximately $3,500 per acre. The general industry benchmarks are $3,155 to $3,721 per acre. Based on this analysis, prior CCSD landscaping costs are in line with industry benchmarks. However, after the 28 percent reduction in staff going into the 2011-12 calendar year, this department is in need of additional staff to perform required lawn service tasks. The recommended strategy is to outsource the lawn service tasks, which could potentially save an estimated 15 percent of the current cost. This strategy should allow the organization to utilize more staff due to the lower cost of outsourced staff – primarily because of lower benefits costs – and complete the required tasks within the existing budget with minimal impact to school operations.

Fiscal Impact

The tasks recommended for outsourcing are those which do not require staff to possess a high level of skill and outside contractors can easily provide the service (e.g., grass cutting, and gardening). Currently, 62 CCSD staff members perform these tasks at an annual cost of approximately $3.1 million each year, or $25 per hour including benefits. Outside contractors, through lower pay rates and benefits, should be able to provide $465,000 of additional needed services ($3.1 million x 15 percent) at the same total cost. Accordingly there is no net fiscal impact of this recommendation.

Energy Management

The review of the energy management function addressed overall energy usage and spending. Findings were based on interviews, discussions with CCSD energy consultants, site visits, and data analysis of the systems and operations to identify and confirm opportunities that could improve the energy efficiency of the district's facilities.

The cost reduction opportunities resulting from this study are summarized in Table 5-5.7. All the cost reduction calculations were developed individually without consideration of other initiatives. The total fiscal impact of all the opportunities in Table 5-5.9 may not be achieved if all the recommendations are implemented as the implementation of certain strategies may reduce the potential cost reductions of other strategies listed.

Cost reductions for all recommendations are supported by detailed engineering analysis developed by the review team and CCSD energy consultants. The calculations take into account parameters such as current baseline energy usage, specific schools or facilities for the recommendation, current electricity

and gas rates, cost to procure and install any equipment, projected cost reductions based on equipment specifications or engineering analysis and the time duration (hours) of the energy use. A summary of recommendations is shown in Table 5-5.7.

Table 5-5.7. Energy management recommendations summary

Recommendations	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required
5-5.4. Modify Heating Ventilation and Air Conditioning (HVAC) equipment start time	High	2012-13	$6,078,208	No
5-5.5. Optimize team clean HVAC	High	2012-13	$7,877,054	Yes
5-5.6. Implement PC management software	High	2012-13	$4,307,143	Yes
5-5.7. Replace compact refrigerators	Low	2012-13	$1,932,553	Yes
5-5.8. Implement optimized and integrated retro-commissioning program	High	2012-14	$14,265,593	Yes
5-5.9. Retrofit walk-in refrigerator and freezer motors	Med	2012-13	$347,454	Yes
5-5.10.Retrofit classroom lighting	High	2012-13	$3,716,616	Yes
5-5.11. Retrofit multi-purpose room lighting	High	2012-13	$339,611	Yes
5-5.12. Retrofit gymnasium lighting	High	2012-13	$679,172	Yes
5-5.13. Install photovoltaic panels	High	2012-13	$112,000	Yes
5-5.14. Install occupancy sensors	Med	2012-13	$1,734,639	Yes
5-5.15. Retrofit and upgrade motors with VFDs	Low	2012-22	$407,426	Yes
Total			**$41,797,469**	

The following recommendations relate primarily to operational modifications, improvements, and equipment upgrades.

Recommendation 5-5.4.Modify Heating Ventilation and Air Conditioning equipment start times.

Currently the HVAC in the Energy Management System (EMS) equipment are started when the custodian first opens the school – approximately two hours prior to students entering the building. CCSD should consider modifying equipment operating schedules for the HVAC equipment in the EMS based on current school bell schedules. Coordinating the HVAC equipment operating schedule with the school schedules will allow for more efficient operation while still providing conditioned spaces upon

occupancy of the buildings by the staff and students. This strategy will not impact the environment while students are in the school and will save approximately one hour of HVAC time per school day.

The calculation of the five-year cost reductions includes one hour of HVAC time per school day at all schools. The cost to implement this recommendation is approximately four hours of programming in the EMS system per school, which can be performed by the CCSD staff. This strategy can be implemented in less than one month.

Recommendation 5-5.5: Optimize Team Clean HVAC.

The custodial staff is currently performing "team cleans" at night, which allows all custodians to focus on cleaning one specific area of a building at a time. However, this team moves through the school twice, and lights and HVAC (in custodial mode) are left on the entire time, which is approximately eight hours.

The district should coordinate the lighting and HVAC usage with the custodial cleaning schedule, and should implement "one-pass" cleaning. Coordinating the lighting and HVAC operating schedule with the custodial "team cleans" and focusing on completing areas in a "one-pass process" will allow the teams to clean areas completely and then turn off the lights and HVAC in that area – reducing energy costs.

The cost reductions are estimated for turning off the lighting and HVAC completely, and are approximately 35 percent to 45 percent during the eight hours of cleaning (based on the school). Implementation costs include zone cleaning area strategy development and additional trainers to train staff on the new process. Additional implementation costs of $500,000 will be required for this recommendation in order to coordinate HVAC and lighting zones with cleaning zones, and provide a contingency for modification of electrical circuits that may be needed to isolate the different areas of the building.

Recommendation 5-5.6: Implement PC management software.

CCSD should implement an energy management system for the district's computer power (e.g., desktop computers) to manage use of equipment only when required and power down when not required. An outside vendor can provide implementation, operation, and maintenance of PC management software. Through a competitive procurement process, CCSD Energy Conservation and Management Departments have received proposals from six vendors to implement this strategy. The cost and cost reductions were obtained from vendor proposals and the analysis estimated that 100,000 computers are involved, with an average annual savings of 100kWh/computer. The implementation costs relate to the installation of the software onto CCSD's system, which can be loaded onto CCSD's network without impacting any critical network functions or increasing risk or security to CCSD operations or information technology systems. The vendors have also provided a proposal to include financing which can be paid for from the cost reductions obtained.

Rebates are also available through NV Energy, the district's utility provider.

Recommendation 5-5.7: Replace compact refrigerators.

Throughout the life of the buildings, faculty and staff members have brought in their own compact refrigerators for personal use. While convenient for staff, utilizing these compact refrigerators is much less efficient than using the existing large community refrigerators. CCSD should implement a policy to prohibit use of personal compact refrigerators used by faculty and staff. In addition, CCSD should install well-paced additional community full-size refrigerators as it is more cost effective to install energy efficient (ENERGY STAR compliant) full-size refrigerators than run the small refrigerators.

The analysis estimates that there are over 7,770 compact refrigerators that could be replaced by adding an additional 971 full-size refrigerators – over 1,500 full-size refrigerators currently exist. The cost reductions are calculated based on the net energy savings of removing the compact refrigerators and adding additional full-size refrigerators.

Recommendation 5-5.8: Implement optimized and integrated retro-commissioning program.

A retro-commissioning program is an effort that ensures that all building equipment (e.g., air conditioning and heating equipment) is operating as efficiently as possible and that the least amount of energy is expended. CCSD facilities that have not been commissioned in the last five years are candidates for retro-commission. CCSD's Energy Conservation and Management Departments have performed commissioning on more recent new construction schools and pilot retro-commissioning efforts on two older schools, but the majority of the buildings have not been retro-commissioned. The pilot retro-commissioning results and industry experience show that retro-commissioning can reduce energy costs for buildings five percent to 15 percent with a short payback period. CCSD should implement a retro-commission program across the entire portfolio of facilities to be completed within two years. The initial retro-commissioning should be performed with the assistance of an outside commissioning provider to meet the two year deadline. The cost reductions are developed by estimating an energy savings of approximately 8 percent for all the schools to be retro-commissioned except the ones previously commissioned. The costs are developed based on a joint CCSD/contractor team performing the commissioning services.

Recommendation 5-5.9: Retrofit walk-in refrigerator and freezer motors.

The district has an estimated 270 walk-in refrigerators which utilize original, less efficient, condenser and evaporator fan motors. The district should replace existing walk-in refrigerator and freezer motors with electronically commutated motors that are more energy efficient. Motors can be easily retrofitted as new motors are direct replacements. The cost to implement is for purchasing and installing new motors. The cost reductions are the calculated net energy savings between the current motors and the new high-efficient motors.

Recommendation 5-5.10: Retrofit classroom lighting.

CCSD's Energy Conservation and Management Departments currently have 98 schools scheduled to receive classroom lighting retrofits of existing fluorescent lighting to more efficient super T8 lighting under current funding. However, retrofitting the classroom lighting for the remaining 200 schools – which would reduce energy usage and have a short payback period – is not scheduled or funded at this time.

The district should retrofit existing classroom lighting fixtures in all schools. By continuing to use the same procedures for implementation as the current classroom lighting retrofit projects, this effort can result in significant energy savings.

Recommendation 5-5.11: Retrofit multi-purpose room lighting.

The classroom lighting retrofit recommendation (Recommendation 5-5.10), does not include retrofitting multi-purpose room lighting. CCSD should retrofit the multi-purpose lighting for 200 schools, which would also reduce energy usage with a short payback period. These projects are not scheduled or funded at this time, as classrooms were prioritized over the multi-purpose rooms. The costs for this recommendation include the cost and installation of the new efficient light fixtures. The cost reductions are calculated from the net energy savings achieved by using the new highly efficient fixtures. The same procedures for implementing classroom lighting retrofits can be applied to the multi-purpose room lighting retrofit project.

Recommendation 5-5.12: Retrofit gymnasium lighting.

CCSD's Energy Conservation and Management Departments currently have a portion of schools scheduled to receive lighting retrofits of the existing gymnasium metal halide lighting to higher efficiency T5 lighting. The district should retrofit existing metal halide light fixtures for gymnasiums in all schools and student centers in high schools and middle schools. Retrofitting the gymnasium lighting for 150 schools, which would reduce energy usage with a short payback period, are not scheduled or funded at this time. The costs for this recommendation include the cost and installation of the new efficient light fixtures for 150 schools. The cost reductions are calculated from the net energy savings achieved by using the high-efficient fixtures. CCSD should continue using the same procedures for implementation as the current gymnasium retrofit projects.

Recommendation 5-5.13: Install photovoltaic panels.

CCSD should continue to take advantage of the Nevada (NV) Energy rebate program for photovoltaic panels, which provides the funding to make this strategy economical, and provides approximately 87 percent of installation costs. While NV Energy provides a limited amount of funding to all customers on an annual basis, CCSD has been able to obtain close to the maximum allowable funding under this program each year. The recommendation is for CCSD to continue to obtain as much of NV Energy's annual program as it is able until the program is discontinued. The estimated fiscal impact assumes the

purchase and installation of eight 50K watt panels (one panel per school) annually that produce solar electric power to help reduce the energy usage at the school. However, CCSD should only purchase photovoltaic panels under conditions where each installation stands on its own merit with respect to return on investment.

Recommendation 5-5.14: Install occupancy sensors.

Occupancy sensors have not been installed in approximately 75 percent of schools in CCSD, and should be installed in schools where they have not been installed to date. These sensors provide energy savings by turning out lights when a room is not occupied for a set period of time.

The implementation costs for this recommendation include the equipment and installation expenses to install the occupancy sensors in approximately 270 schools. Cost reductions are calculated by assuming that these sensors will save approximately 20 percent of the electrical energy used by the lighting in the school.

Recommendation 5-5.15: Retrofit and upgrades of motors with Variable Frequency Drives.

Approximately 30 percent of CCSD schools have installed constant speed motors, which run at the same speed all the time without regards to the amount of demand on the motor. These motors are used for various applications including heating and cooling equipment. Constant speed motors are less efficient than variable speed motors, which can vary energy use based on demand.

Because of the relatively low payback of this recommendation, it may be more economical to upgrade to variable speed motors when the existing motors are in need of replacement, which will most likely be over a 10-year period. The cost analysis estimated 33 motors per school for 108 schools, and the implementation costs include both the equipment and the installation costs. Cost reductions are estimated based on the energy use difference between the two types of motors.

Fiscal Impact

The following table lists each recommendation, the estimated costs to implement the recommendation and the expected cost reductions. The cost reductions have been calculated for the first five years. It was estimated that only 50 percent of the cost reductions would be realized in the first year due to implementation timelines. The recommendations are listed in the order of the highest return on investment.

Energy savings projects have been implemented by CCSD in prior years primarily with the support of bond funding. Although many projects have been implemented, there are many more opportunities to save on energy costs. Most of these projects will require initial up-front investments, and it is recommended that CCSD look at a variety of ways to fund these projects. If the recommendation involves capital upgrades (e.g., lighting), CCSD can obtain additional bond funding or contract with an energy services company that will fund and finance the investment. If the recommendation involves the

implementation of a specialized technology (e.g. PC management), pursuing relationships with firms that will finance the investment through cost reductions are recommended – with no initial investment by CCSD. For those recommendations that are labor intensive and difficult to fund with bond funds (e.g., commissioning, modifying HVAC start time), the primary funds will come from the operating budget.

These recommendations have very quick payback periods, and if they are planned over two years and timed with the seasons, much of the cost reductions during the calendar year could fund the actual costs to implement for that year.

Table 5-5.8. Detailed five-year fiscal impact, energy management cost reductions

Recommendation	One-Time Cost / Reduction	2012-13	2013-14	2014-15	2015-16	2016-17
Energy Management						
5-5.4. Modify Heating Ventilation and Air Conditioning (HVAC) equipment start time	($77,760)	$683,996	$1,367,993	$1,367,993	$1,367,993	$1,367,993
5-5.5. Optimize team clean HVAC	($655,000)	$948,006	$1,896,012	$1,896,012	$1,896,012	$1,896,012
5-5.6. Implement PC management software	($864,000)	$574,571	$1,149,143	$1,149,143	$1,149,143	$1,149,143
5-5.7. Replace compact refrigerators	($1,146,252)	$342,089	$684,179	$684,179	$684,179	$684,179
5-5.8. Implement optimized and integrated retro-commissioning program	($8,975,066)	$2,582,295	$5,164,591	$5,164,591	$5,164,591	$5,164,591
5-5.9. Retrofit walk-in refrigerator and freezer motors	($410,130)	$84,176	$168,352	$168,352	$168,352	$168,352
5-5.10.Retrofit classroom lighting	($6,836,735)	$1,172,595	$2,345,189	$2,345,189	$2,345,189	$2,345,189
5-5.11. Retrofit multi-purpose room lighting	($624,717)	$107,148	$214,295	$214,295	$214,295	$214,295
5-5.12. Retrofit gymnasium lighting	($1,440,000)	$235,464	$470,927	$470,927	$470,927	$470,927
5-5.13. Install photovoltaic panels	($284,000)	$44,000	$88,000	$88,000	$88,000	$88,000
5-5.14. Install occupancy sensors	($6,850,618)	$953,917	$1,907,835	$1,907,835	$1,907,835	$1,907,835
5-5.15. Retrofit and upgrade motors with VFDs	($1,935,360)	$260,310	$520,619	$520,619	$520,619	$520,619
Totals (some individual opportunities may overlap with others)	**($30,099,638)**	**$7,988,567**	**$15,977,135**	**$15,977,135**	**$15,977,135**	**$15,977,135**

Custodial Services

CCSD's custodial services are part of the district's Operations Department, and are responsible for cleaning 351 schools and other district facilities comprising over 35 million square feet of space. The custodial function consists of 1,514 employees including custodians, pest control personnel, and supervisory and administrative staff.

Table 5-5.9 shows a summary of personnel as of the date of this study and the budgeted staff levels for fiscal year 2011-12.

Table 5-5.9. Custodial personnel, fiscal years 2010-11 and 2011-12

Classification	Fiscal Year 2010-11	Fiscal Year 2011-12
Administration	3	2
Clerical	10	7
Floor care specialists	10	9
Training staff	6	3
Pest control specialists	6	6
Custodians	1,154	1,146
Custodial supervisors	325	322
Total	**1,514**	**1,495**

Source: CCSD Operations Department, 2011

Note: Custodial supervisors also includes head custodians

Supplies of custodial products are largely budgeted at the school level. Purchases are made by each school as quantities are depleted. The total amount budgeted for supplies in the past three years has not changed significantly from the amount budgeted in fiscal year 2010-11 of $2,253,756 (see Table 5-5.10). Expenditures of the department for the last three fiscal years are shown in Table 5-5.10.

Table 5-5.10. Custodial department operating results, fiscal years 2008-09 through 2010-11

Category	Fiscal Year 2008-09	Fiscal Year 2009-10	Fiscal Year 2010-11
Salaries and wages	$50,757,341	$52,610,039	$52,537,264
Benefits	$20,889,556	$24,173,514	$25,676,185
Services	$0	$0	$691
Supplies	$0	$377,063	$347,024
Other	$0	$29,722	$93,101
Totals	**$71,646,897**	**$77,190,338**	**$78,654,265**

Source: CCSD Budget Office, 2011

Note: Supplies of custodial products are also budgeted at the individual schools. See discussion below. Changes in expenditure classification occurred after FY 2008-09. Prior to FY 2009-10, custodial supplies and services were not separately budgeted.

Key operating statistics for the past three years are shown in Table 5-5.11.

Table 5-5.11. Custodial services operating statistics, fiscal years 2008-09 through 2010-11

Statistic	Fiscal Year 2008-09	Fiscal Year 2009-10	Fiscal Year 2010-11
Total personnel	1,495	1,480	1,514
Square footage [1]	34,491,205	33,624,210	34,591,205
Department expenses	$71,646,897	$77,190,338	$78,654,265
School supplies expense	$2,261,398	$2,249,509	$2,253,756
Cost per square foot	$2.14	$2.36	$2.34
Student enrollment	311,240	309,476	309,893
Cost per student	$230.19	$249.42	$253.81
Average Salary Levels	$35,175	$35,547	$34,701
Average Benefit Rate	41.2%	46.0%	48.9%

Source: CCSD Operations Department and Business Office, 2011

[1] Square footage of CCSD's facilities varied depending on the source of the information.

Average salary levels have declined in FY 2010-11 even as the number of personnel has increased slightly. However, the level of benefits has dramatically increased. This increase is largely due to employee group insurance, which has increased by over $4 million (to $13.8 million) from 2008-09 to 2010-11, a 26 percent increase from 2008-09 to 2009-10 and another 12 percent jump in 2010-11. Strategies to address this issue are discussed in the remainder of this section.

Assignment of Custodians

Custodians are assigned to schools and other facilities based on the square footage of floor space to be cleaned, and each evening shift custodian is responsible for cleaning 32,000 square feet. For elementary schools, the total square footage of the school, including the floor space of all portable classrooms on site, is reduced by 5,000 (representing the average size of the cafeteria) and the remaining square footage is divided by 32,000 to yield the number of FTEs necessary for the evening shift. Each elementary school's head custodian is expected to clean the cafeteria before the end of his/her daytime shift.

For secondary schools, square footage of the school is divided by 32,000 to determine the total number of custodians to be assigned to the school on either the day or night shift. In addition to this staffing formula, each secondary school is also assigned one head custodian (either Head Custodian II or III, for middle school or high school, respectively). For each high school, one of the staff members included in the total derived by the formula is a Lead Custodian, who is a working supervisor who works during the evening shift.

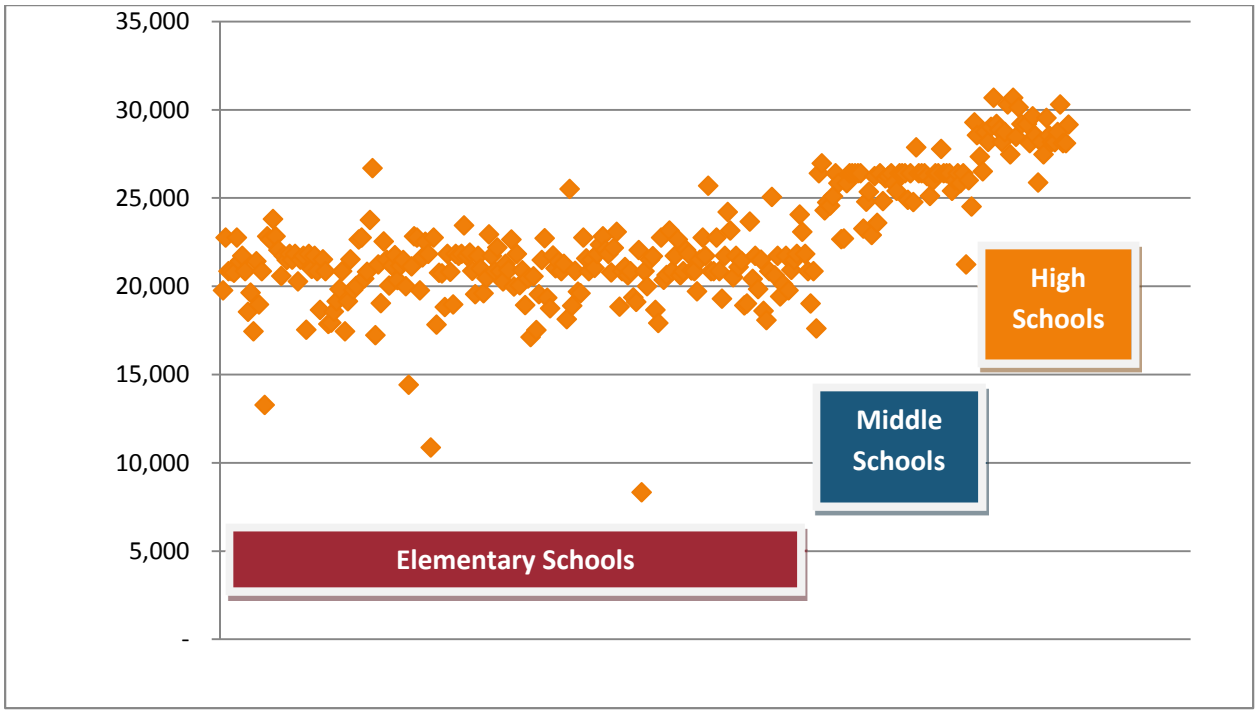
When the staffing formula yields a partial staff count (i.e., when the quotient of the formula is a non-integer), the school may be assigned a combination of full-time and part-time staff. The review team noted that currently, CCSD schools have 263 employees who work as custodians for shifts ranging from two hours to seven hours daily. These individuals may also work in some other capacity at CCSD, but their shifts as custodians are less than eight hours per day.

By employing staff for the exact number of hours needed, CCSD is able to maximize staffing efficiency regardless of the physical layout or size of each school. Were the department to hire either full-time (eight hours daily) or half-time (four hours daily) employees – as opposed to the variable shifts currently in place – CCSD would incur over 430 additional hours daily. These hours would result in over $1 million in added personnel costs annually.

National staffing standards for school operations vary by state, and school-related professional association guidelines do not always agree. However, according to the Planning Guide for Maintaining School Facilities[60], issued in conjunction with the National Association for School Business Officials (ASBO), a school custodian should be able to clean between 28,000 and 31,000 square feet per eight-hour night shift, or an aggregate measure ranging from 23,000 to 25,000 square feet when incorporating day shift staff requirements. This level of productivity is the norm for most school facilities, and CCSD's square footage per custodian exceeds the national standard. Figure 5-5.2 is a scatter diagram reflecting the custodial productivity, measured at gross square feet per custodial FTE, at each school. While more schools fall in the 18,000 to 24,000 range, these are primarily elementary schools where maximum productivity levels are more difficult to attain because of the smaller school size and the need to have at least one custodian at the school during the school day. As shown in Figure 5-5.2, there were four elementary schools that had low productivity in 2010-11 compared to others in CCSD.

[60] http://nces.ed.gov/pubs2003/2003347.pdf

Figure 5-5.2. Gross square feet per custodian by school, 2010-11



Source: CCSD, 2011

Similar standards have been published in the American School and University (ASU) journal. From its most recent national survey (2009)[61], ASU published data on custodial costs on a per student and per square foot basis. In 2009, the average costs of custodial services were $277.69 per student; CCSD's current costs of $260.83 per student are slightly lower than this benchmark. ASU's average custodial costs were reported to be $1.59 per square foot; CCSD's custodial costs of $2.34 per square foot significantly exceed the ASU national average.

In its publication, *Performance Measurement & Benchmarking for K12 Operations*, the Council of Great City Schools (CGCS) suggested per-square-foot and per-custodian benchmarks for custodial services. The median of $1.57 per square foot and 25,536 square feet cleaned per custodian are similar to the other benchmarks discussed above.

CCSD's custodial productivity rate per staff member is in line with national averages. The cause for higher custodial costs is related to CCSD's higher compensation rates and benefits. Part of this is due to custodial staff being paid on the high end of CCSD's published salary scales[62]. Applying the minimum, maximum, and average salary rate to the number of personnel in each category, projected costs at each salary level can be calculated and compared to actual salary costs. The actual FY 2010-11 custodial salary costs were only $2,588,904 below the maximum, as shown in Table 5-5.12.

[61] http://asumag.com/Maintenance/school-district-maintenance-operations-cost-study-200904/index.html

[62] http://www.ccsd.net/jobs/gnrl/pdf/ESEA_Agreement.pdf

Table 5-5.12. Projected salary levels, fiscal year 2011-12

Level	Salary
If all custodians paid at minimum salary level	$42,223,720
If all custodians paid at average salary level	$48,674,944
If all custodians paid at maximum salary level	$55,126,168
Actual salary expense - 2011	**$52,537,264**
Difference between maximum and actual	**$2,588,904**

Source: CCSD Operations Department and Business Office, 2011

In addition to the established minimum and maximum compensation levels for each position, CCSD support staff is eligible for step increases in salary based on the classification of the position and the number of years of service. CCSD custodial staff have not experienced significant turnover in recent years, and consequently, incumbent custodians are eligible for salary levels significantly higher than the minimum. Table 5-5.13 indicates the average number of years of service for each custodial position based on the actual compensation paid in 2010-11.

Table 5-5.13. Average salary expense by position, fiscal year 2010-11

Category	Count	Pay Grade	Actual Salary Expense (2010-11)	Average Hourly Rate	Step	Average Service (Years)
Clerical	10	40	$361,881	$17.40	Above max	20 +
Floor Care Supervisor	1	52	$63,220	$30.39	Above max	20 +
Senior Floor Care Technician	2	50	$120,401	$28.94	Above max	20 +
Floor Care Technician	7	48	$290,127	$19.93	E2	5
Assistant Custodial Supervisor	5	53	$292,800	$28.15	G2	10
Custodial Supervisor	7	54	$453,447	$31.14	H2	15
Trainer	5	51	$264,880	$25.47	G2	10
Custodial Leader	48	46	$1,910,718	$19.14	F2	5 +
Custodian	1,106	43	$34,260,205	$15.00	D2	4
Head Custodian I	208	47	$8,648,128	$19.99	F2	5 +
Head Custodian II	64	48	$2,956,083	$22.21	G2	10
Head Custodian III	38	52	$2,122,641	$26.86	G2	10
Head Custodian – Special Schools	3	47	$128,136	$20.53	G1	10

Category	Count	Pay Grade	Actual Salary Expense (2010-11)	Average Hourly Rate	Step	Average Service (Years)
Pest Control Supervisor	1	50	$60,224	$28.95	Above max	20 +
Pest Control Technician	2	44	$71,490	$17.19	F2	5 +
Senior pest control technician	3	47	$123,381	$19.77	F1	5 +

Source: ESEA negotiated agreement[63], 2011; CCSD Operations Department, 2011

Strategies for Cost Containment

Custodial Services currently exceeds national standards for productivity for cleaning schools to an acceptable level of cleanliness. As noted above, the department does plan to reduce personnel in certain areas next year; however, these cuts will not impact custodian or head custodian positions. CCSD could reduce custodial positions to achieve costs reductions, but this would require modification in the cleaning procedures, and the frequency of certain processes, such as floor sweeping, carpet vacuuming, wastebasket collection, and mopping, would need to be reduced. This could negatively impact the cleanliness of the schools.

Other reductions in costs, such as services or supplies, are not likely to yield any significant cost reductions due to the relatively small contribution of these categories to total custodial expenses. Reducing overall custodial costs can only be achieved by reducing salary rates or benefits, or both.

Recommendation 5-5.16: Outsource custodial services operation to a private service firm.

The process of outsourcing custodial services operations would include the following tasks:

- Issue an initial Request for Qualifications to identify firms with proven experience and expertise in school district custodial operations. CCSD can further negotiate with one or more of these firms for specific contract terms.
- Determine the contract terms to be negotiated, particularly the treatment of existing staff in the transition to an outsourcing firm.
- Negotiate contract terms. In order to achieve the desired levels of cost reductions, an external firm will need to be assured that the contract will remain in effect for a period of time necessary to amortize start-up costs (equipment, employee on-boarding expenses, etc.) and to implement any organizational changes or phase-out any pre-conditions set by CCSD.

[63] http://www.ccsd.net/jobs/gnrl/pdf/ESEA_Agreement.pdf

Fiscal Impact

Within the past 18 months, the department conducted exploratory discussions with a firm that outsources custodial services for public institutions such as CCSD (several firms have approached the district over the past decade). The projected cost schedule included 1,522 FTEs in approximately the same personnel categories as are currently employed; however, average salary rates and benefits, particularly employee group insurance, were significantly less than CCSD's internal costs. For example, the proposed average salary rate for custodians was $12.57 per hour, compared to CCSD's current rate of $15.00 – a difference of approximately $5.6 million annually. The proposed cost of benefits for employee group insurance was estimated at $259.18 per month for employee-only coverage, compared with $526.65 per employee under the negotiated agreement with CCSD Education Support Employees Association– a difference of $4.8 million annually. The combined projected cost reductions amount to $10.4 million.

The fiscal impact is based on preliminary estimates of cost reductions above that could be received by CCSD if custodial operations are outsourced, and assumes a phasing-in of the actual cost reductions to support a smooth transition from the in-house operation to the outsourcing firm.

Recommendation 5-5.16.	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2016-17	2017-18
Outsource custodial operations to a private service firm	$0	$5,200,000	$10,400,000	$10,400,000	$10,400,000	$10,400,000
Total	**$0**	**$5,200,000**	**$10,400,000**	**$10,400,000**	**$10,400,000**	**$10,400,000**

Section 6 – Transportation

The CCSD Transportation Department is responsible for home to school transportation for general education students and special needs students attending public schools and vocational and technical schools. The department is also responsible for student transportation for summer programs, school activities, educational field trips, and extracurricular activity trips for all schools. Additionally, the department is responsible for vehicle maintenance for the fleet of school buses and the for the district's general services vehicles.

The mission of the Transportation Department is:

- To provide safe, timely, efficient and courteous bus transportation services to eligible students in the Clark County School District.
- To provide, effective, efficient, and safe fleet management and maintenance services to meet overall CCSD transportation needs.
- To provide quality performance, showing continual improvement in meeting departmental objectives toward the ultimate goal of student achievement.[64]

In addition to the geographical and topographical challenges mentioned for other departments, the Transportation Department faces other challenges specific to its mission. For example, it provides transportation for students attending alternative schools for behavior problems, students who are eligible to attend their school of choice (rather than their neighborhood school), and students who participate in career and technical programs and work life programs offered throughout the district. The department also transports general and special needs students from home to the locations for programs that may be miles away from the student's "home" school. It provides transportation for general and special needs students, for extended school year (ESY) students in the summer, and for sporting events, extracurricular activities, and field trips.

During the 2010-11 school year, approximately 120,000 CCSD students were eligible for home-to-school transportation. The Transportation Department served approximately 97,000 general education students daily and 9,000 special needs students in the district.

The following table (Table 5-6.1) outlines the increase in student riders in each of the past four years.

[64] Source: http://transportation.ccsd.net/quick%20links/qckMission.php

Table 5-6.1. Student ridership, 2008 to 2011

	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Total students eligible for student transportation	115,000	112,759	111,430	120,879
General daily student riders	70,189	77,203	81,891	96,856
Special needs daily student riders	6,483	6,839	7,634	8,926
Total student riders	76,672	84,042	89,525	105,782
Student riders as percent of eligible	67%	75%	80%	88%

Source: Annual Transportation Reports to the Nevada Department of Education; FY 2010-11 CCSD Transportation Department

The Transportation Department attempts to strategically locate the facilities, which house transportation operations and vehicle maintenance throughout the district's large geographical area. There are currently five facilities located within the city of Las Vegas and four outlying facilities in more rural areas of the county. A new facility is under construction. Four of the five facilities in Las Vegas serve as active transportation facilities for school buses. The Arville transportation facility in Las Vegas is the most centrally located and serves as the base for the largest number of school buses, 500. Cheyenne, located in North Las Vegas, is the second largest bus facility with 350 buses. The Russell transportation facility is located in southeast Las Vegas and is the base for 250 buses. The newest facility, Wallace is located south of downtown Las Vegas. The district constructed Wallace approximately four years ago to maintain 250 buses and serve as the warehouse for a large inventory of parts for vehicle maintenance. The fifth facility in Las Vegas, Eastern, is also the oldest. Last year, the district closed the Eastern site as a school bus operating facility. The Transportation Department currently uses Eastern as an administrative facility and as the location for vehicle maintenance for the general services vehicle fleet. All of the transportation facilities, with the exception of Wallace, are at maximum vehicle capacity. The new vehicle maintenance facility under construction is in northwest Las Vegas. When the new facility opens in 2012, the Transportation Department will relocate some school buses from existing facilities to the new location. The Transportation Department estimates the new assignment of buses will permit the district to reduce "deadhead miles" — the distance traveled from the bus facility parking to the start of school bus routes. The outlying facilities serve small numbers of buses in remote areas. The four outlying facilities include Laughlin (eight buses), Mesquite/Moapa Valley (25 buses), Indian Springs (three buses), and Sandy Valley (four vehicles).

The Transportation Department has a school bus fleet of almost 1,600 buses.[65] The current schedule for replacing standard school buses is every 14 years. The department typically retains special education buses for 15 years. Historically, the department has purchased approximately 110 buses per year, for replacement vehicles and growth in service. The director of vehicle maintenance in the Transportation Department said that the district's goal is to purchase approximately the same number of vehicles annually to ensure a regular replacement schedule; however, recent changes in the number of buses

[65] Source: CCSD Transportation Department, 2011

required for daily student transportation (discussed below) will reduce the number of buses retired for replacement each year.

The department also uses technology to help improve operating efficiency and collect accurate data. Several years ago, the district purchased the Zonar system for each school bus. Zonar is an automated system that each driver uses to conduct and record daily pre-trip and post-trip bus inspections for each bus. Zonar also records driver start and end times, reducing the time paid related to drivers reporting to a central location and then walking to find the bus parked on the facility parking lot. The Transportation Department can also message each driver on duty using the Zonar system on the school bus.

The total 2010-11 budget for the Transportation Department was $111 million, including all vehicle maintenance.[66] Of the total $111 million, 85 percent was budgeted for salary and salary-related expenses, 11 percent for fuel, and 4 percent for supplies. The department works to reduce fuel and mileage, but the cost of fuel continues to be unpredictably volatile, making planned reduction in expenses difficult. The Transportation Department recently implemented a midday "park out" of some buses at high schools strategically located in the district in order to reduce deadhead time (and thereby, fuel costs) on some routes. In 2010, the district leadership team asked the Transportation Department to reduce the budget 15 to 20 percent for the 2011-12 school year. The department made reductions totaling about 14 percent, approximately $12 million in bus route reductions through staggered bell schedules (discussed further below), and an additional $3 million for expenditure reductions in administrative staff, supplies, and parts.

The Transportation Department has been very effective in identifying ways to be more efficient and reduce total costs. A major initiative to stagger bell times beginning in the 2011-12 school year will allow CCSD to provide home-to-school transportation with fewer school buses. The staggered bell times will make it possible for one bus to make trips to multiple schools each morning and afternoon. The district expects that staggering bell schedules to maximize the use of buses and bus drivers will save the district $12 million in 2011-12, or about 11 percent of the Transportation Department budget. In another initiative, the Transportation Department is implementing new software (COMPASS) for automated routing and driver scheduling, which should result in additional efficiencies. One of the challenges for the Transportation Department will be to sustain these cost reductions in the face of increasing ridership. As principals and other school representatives are empowered with additional decision-making authority, there is more pressure on the Transportation Department to respond to site-based decisions related to early releases and revised bell times. These changes in schedules can increase costs and risk undermining the Transportation Department cost reductions that have already been achieved or are planned.

This study identifies four additional opportunities for cost reductions in the Transportation Department. In some cases, Transportation Department staff had already identified but has not yet implemented these opportunities. Table 5-6.2 summarizes the recommendations for the Transportation Department. As an alternative to the organization and management recommendations set forth, the district should

[66] Source: 2011-12 CCSD Transportation Department budget

consider outsourcing transportation services to save costs should the changes to revise bus driver work rules and bell schedules not be selected for implementation.

Table 5-6.2. Summary of recommendations

Recommendation	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
Organization and Management					
5-6.1. Reorganize the Transportation Department to reduce supervisory staff.	High	2013-14	$2,243,590	Yes	No
5-6.2. Revise work rules for bus drivers and revise bell times to improve scheduling efficiency.	High	2013-14	$14,252,880	No	Yes
5-6.3. Develop guidelines to facilitate the least restrictive mode of transportation for special needs students.	Medium	2013-14	$7,980,000	No	No
Total			**$24,476,470**		
Alternative Recommendation: Outsource Student Transportation					
5-6.4. Consider outsourcing transportation service to reduce total cost.	High	2014-15	$36,082,000	Yes	Yes
Total			**$36,082,000**		

Organization and Management

Providing transportation to over 100,000 students in an 8,000 square mile service area requires a large administrative staff to manage operations and supervise bus drivers and transportation aides. The Director of Transportation (Director III) leads the Transportation Department organization. Two deputy directors (Director I) support the director. One deputy director is responsible for vehicle maintenance for the school bus fleet and the district's general service vehicles. The other deputy director is responsible for the student transportation functions of the department. Five transportation coordinators representing various functions of the department report to the Deputy Director of Student Transportation. The five coordinators are responsible for general education transportation, special education transportation, investigations and training, routing and scheduling, and information technology. The Transportation Department also has a payroll manager and a call center. While the majority of these functions are essential for the day-to-day operations of the department, there are many supervisory positions for general education transportation and special education transportation. Some of these supervisory positions are necessary to assist with day-to-day operations; however, there

is an opportunity to reorganize the Department to reduce staff while improving field supervision of transportation services. Representatives in the Transportation Department suggested some of the concepts and ideas for reorganization of the department during discussions with the review team in June of 2011.

The Transportation Department also identified opportunities to save additional costs by scheduling driver assignments to improve efficiency. However, four provisions in the negotiated agreement with the Education Support Employees Association (ESEA) establish work rules that create inefficiencies in the assignment of driver time, thereby increasing operating costs. If the rules for driver time were more flexible, the new COMPASS software could create more seven-hour to eight-hour driver assignments. More efficient bus driver assignments will increase the number of full-time drivers while reducing the total number of drivers on the payroll.

The cost of student transportation per rider is very different for students using general education transportation and students with special needs who require special education transportation. In 2010-11, the cost for student transportation operations only (excluding vehicle maintenance, investigations and training, routing and scheduling, and information technology) was $76 million. Of that amount, $42 million, or 54 percent, was for special education transportation to transport, on average, less than 9,000 daily student riders. This compares to the general education transportation cost of about $34 million to transport about 97,000 daily student riders.

The opportunities to create cost reductions in the Transportation Department by reorganizing supervisory staff, revising work rules, and establishing close cooperation with the Special Education Department are discussed in the following recommendations.

Recommendation 5-6.1: Reorganize the Transportation Department to reduce supervisory staff.

The Transportation Department supervisory staff responsible for general education and special education transportation is larger than required to oversee operations. At the same time, there is not enough oversight of transportation service in the field. The budget for 2011-12 reflects a coordinator for general education, a coordinator for special education, three operations managers and 21 field supervisors¸ supported by 10 dispatchers and 11 office specialists. These supervisory positions oversee the bus drivers and transportation aides. There is an opportunity to reduce costs by revising the organization to decrease supervisory staff and increase personnel responsible for supervision of service in the field.

Most field supervisors for general and special education spend the majority of their time in an office setting, dealing with payroll and other paperwork, and do not actually supervise “in the field”. The Transportation Department needs more personnel who work directly with drivers and aides and oversee transportation services for students. Drivers often need assistance while operating their buses for a number of reasons, including incidents or accidents, in-service bus breakdowns, issues with student behavior, questions about schedules and routes, and communications with parents and school administrators. Supervisors who actually spend time “in the field” can offer assistance in a more

efficient and timely fashion. Deploying more staff in the field will aid in customer service and the efficiency of day-to-day operations.

The proposed reorganization includes eliminating the position of field supervisor, increasing the number of operations managers to supervise student transportation, and increasing the number of office clerks to handle transactional duties, permitting the Operations Managers to be in the field rather than the office. Each Operations Manager will report to one of the coordinators for general or special education transportation.

Additionally, the Transportation Department should implement a Lead Driver position. Each lead driver should be responsible for about 25 bus drivers plus transportation aides, and be trained to answer questions, help with issues, and ensure that the paperwork for each driver's route is completed. In addition to supervisory responsibilities for other drivers, lead drivers should respond to calls from parents and school administrators, review incident videotapes from cameras on buses when required, observe drivers on routes, and serve as assistant trainers. Lead drivers should also drive school bus routes themselves when there are not enough drivers available. Lead drivers are already on the payroll and so the additional cost would be the incremental cost for salary increases to reflect the new responsibilities. The lead drivers will each report to one of the operations managers.

Table 5-6.3 illustrates the 2011-12 staff levels and the proposed changes. The chart reflects only the general education and special education transportation functions affected by the change in organization.

Table 5-6.3. 2011-12 staff level and proposed changes

Position Description	2011-12 Staff Level	Recommended Staff Level	Change
Operations Manager	3	10	+7
Field Supervisor	21	0	-21
Dispatcher	10	10	0
Operations Clerk	4	6	+2
Total	**45**	**33**	**-12**
Lead Driver*	0	54	+54

Source: CCSD, 2011-12 Transportation organization chart

*Lead Driver would be a new position to the organizational chart.

Other elements of proposed staff changes include delegating payroll processes to operations clerks, using electronic messaging to send messages to drivers rather than calling individuals into the office to deliver information, and implementing an automated telephone system for public information rather than calls directly to operations managers. The department can accomplish these improvements with existing resources.

To implement these changes, the Transportation Department director and the coordinator for transportation operations should work with the Human Resources Division to draft a new job description for lead driver and post the vacancies. Qualified candidates for the new vacancies would be expected apply for the positions. Some of the existing field supervisors would undoubtedly qualify for the additional operations manager positions.

Fiscal Impact

The fiscal impact for this recommendation includes a labor cost reduction related to the elimination of the 21 staff budgeted in the field supervisor position for 2011-12. The cost reductions of $1,915,876 per year are calculated as the average salary for all 28 employees in the position in 2010-11 ($63,443), plus 33.48[67] percent payroll benefits, plus the annual health insurance rate per support position of $6,320 per year.

The fiscal impact for this recommendation includes an increase in labor costs for seven additional operations managers and two additional operations clerks. The annual increase in labor costs of $790,203 for the seven operations managers is calculated as above, using and average annual salary of $79,622. The annual increase in labor costs of $131,289 for the two additional operations clerks is calculated as above, using an average annual salary of $44,325.

The additional cost for the lead drivers will be an incremental increase in wages for the additional responsibilities plus related payroll benefits. The annual increase in labor costs of $545,666 is calculated as $7,547 per year additional wages plus 33.48[68] percent payroll benefits for each of 54 lead drivers. The 54 new lead drivers (32 general bus drivers and 22 special bus drivers) are anticipated to be promotions for current bus drivers. This will leave some bus driver vacancies that need to be filled. This impact is addressed in the next recommendation concerning bus driver work rules and revised bell schedules.

The net cost reduction is $448,718 per year. An implementation date of August 2012 is recommended.

Recommendation 5-6.1	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Eliminate field supervisors (21)	$0	$1,915,876	$1,915,876	$1,915,876	$1,915,876	$1,915,876
Add operations managers (7)	$0	($790,203)	($790,203)	($790,203)	($790,203)	($790,203)
Add operations clerks (2)	$0	($131,289)	($131,289)	($131,289)	($131,289)	($131,289)
Increase pay for lead drivers (54)	$0	($545,666)	($545,666)	($545,666)	($545,666)	($545,666)
Total	**$0**	**$448,718**	**$448,718**	**$448,718**	**$448,718**	**$448,718**

[67] Source: CCSD Human Resources Division
[68] Source: CCSD Human Resources Division

Recommendation 5-6.2: Revise work rules for bus drivers and revise bell times to improve scheduling efficiency.

Student transportation cost reductions can be achieved with more efficient scheduling of driver assignments and additional adjustments in the bell schedules. However, this will require renegotiation of certain terms in the labor agreement with the bus drivers' employee association.

Four provisions in the negotiated labor agreement with the ESEA create inefficiencies in the assignment of driver time and increase Transportation Department operating costs:

1. Nine-month and eleven-month bus drivers are guaranteed at least six hours of work each school day. (Article 33-3).

2. Bus drivers successfully bidding for summer assignments are entitled to receive the six-hour guarantee for four workdays during each week of their assignment. If a scheduled driver's service requires a fifth day, they are entitled to receive a three-hour guarantee.

3. A period of one hour or less of waiting time between assigned runs is included as paid driving time.

4. The District has twenty-five school days from the students' first day of school to adjust a general bus driver's total paid time, and thirty school days from the students' first day of school to adjust a special education bus driver's total paid time. If a bus driver's total paid time is reduced after these cutoff dates, the bus driver will still be entitled to be paid his or her total paid time, according to the labor rules listed above.[69]

Total paid time refers to the time per daily assignment that is the basis for each driver's wages. Total paid time includes the driver's time operating the school bus on route, paid time for sign-in/sign-out, and paid waiting time, if applicable according to ESEA work rules. A six-hour guarantee means a driver with an assignment for less time will be paid for non-productive time, up to a total of six hours. The six-hour guarantee is particularly inefficient in the summer when many driver assignments are less than six hours.

The up to one-hour paid waiting period makes it difficult to assign two four-hour runs to a single driver, as the paid waiting period forces the total assigned time to over eight-hours for the day and 40 hours for the week, which incurs overtime costs.

Student loads on school buses vary significantly during the first few weeks of a school term. School starts in August, but many students do not return to school until after Labor Day. Bus schedules that work for the start of school have to be adjusted in response to changes in student rider loads and even changes in student school assignments, well after the school term starts. There are opportunities to improve bus scheduling efficiency after student ridership settles into a pattern. An improvement in bus

[69] http://www.ccsd.net/jobs/gnrl/pdf/ESEA_Agreement.pdf

scheduling may mean a driver's daily assignment requires less total time. However, the labor agreement requirement that a bus driver's total paid time per daily assignment cannot change after 25 school days from the start of school for general education and after 30 school days for special education, means that paid time is set before the Transportation Department can create the most efficient bus schedules.

The district should seek to negotiate a change in the labor agreement to eliminate these rules that build in pay for non-productive time and create scheduling inefficiencies. The Transportation Department has already identified this initiative; however, the district has not made a formal approach to representatives of ESEA to negotiate a change in the labor agreement rules for driver paid time.

Further staggering of bell schedules at schools can help to reduce peak demand for school buses. The new bell schedule for 2011-12 evens out the buses across three bells. Primarily high schools are on first bell, middle schools are on second bell, and elementary schools are on third bell, however there are some exceptions. A fourth bell scenario will create a 9:45 a.m. bell time and further even out the bell times. This additional bell scenario could increase the number of driver assignments over seven hours and reduce the total number of drivers needed. The Transportation Department has already identified this initiative; however, department staff representatives diverge on how much could be saved with this strategy. Transportation for "choice students" (i.e., students who are transported some distance across the school district to attend the school of choice) creates a limit to how much can be achieved by staggering bell times. At some point, scheduling efficiency is minimized by smaller numbers of student riders on more buses to more schools A combination of more flexible bus driver work rules and additional staggered bell times will make it possible for the new COMPASS software to create more efficient bus driver assignments and reduce the total number of buses required.

With approval of the school district administration, the director of the Transportation Department can begin discussions with drivers and representatives of the ESEA about the benefits that could accrue with greater flexibility for bus driver work rules. The Transportation Department can prepare analyses of the benefits of more full-time drivers to assist in negotiation. The effort can be accomplished with existing resources; however, the effort will be successful only if the school district administration is prepared to support the Transportation Department in the commitment to more efficiently schedule driver assignments.

The Transportation Department has already considered options for further staggering bell times to reduce peak demand for school buses. With implementation of the COMPASS software, it is both more feasible and less time consuming to evaluate a range of options. Additional changes in bell times will require support from the school district administration, principals, other key school administrators, and parents. The Transportation Department effectively established the value of reducing school bell times during the last changes and a continued program for communication with stakeholders is necessary.

There are several possible opportunities to reduce operating costs.

- Operating costs will be saved if the labor agreement is revised to guarantee bus drivers four hours of work each school day instead of six. The review team found that 124 general bus driver

assignments and 20 special bus driver assignments consisted of less than six hours of driving time in the 2010-11 bus schedules for the regular school year. Each driver with an assignment of less than six hours of driving time was paid the six-hour minimum for each school day during the regular school year. This generated 121.5 total paid hours more than actual scheduled bus driver assignments each day (106.7 paid hours for general bus drivers and 14.8 paid hours for special bus drivers) for 180 school days per year. A change in bus driver work rules could reduce paid (but not productive) time by up to 21,870 hours per year, with associated pay and benefits cost reductions. A change in practice to set the minimum guaranteed hours paid at four hours would also minimize the impact of the policy to set a driver's hours within 25 days (general) to 30 days (special) from the start of school.

- Significant cost reductions will also accrue if the labor agreement is revised to reduce the paid-time guarantee to four hours for each Extended School Year school day in the summer sessions. The review team found that 273 general bus driver assignments were less than six hours for the 2010-11 summer sessions. Each driver with an assignment less than six hours was paid a minimum of six hours for each school day during the ESY. This generated 688.5 total paid but un-driven hours every day, for each of the 50 summer school days (one six-week session for 30 days and one four-week session for 20 days). Different bus driver work rules would have saved up to 34,425 hours during the summer.

- Data were not available to estimate the exact impact of the ESEA work rule that requires paid time for one hour or less of waiting time between assigned runs. However, this guarantee makes it difficult to assign two four-hour runs to a single driver, as the paid waiting period forces the total assigned time over eight hours for the day and 40 hours for the week (overtime). Analysis by the review team identified 49 general education and 79 special education bus driver assignments that were over eight hours per school day during the 2010-11 regular school year. The total hours of time over eight hours per day were 102.8 hours (per day) for 180 days per year (64.1 paid hours for general bus drivers and 38.7 paid hours for special bus drivers). A change in bus driver work rules to create more efficient bus driver assignments could save 18,504 overtime hours per year at time and one-half pay per hour.

- To analyze the impact of additional staggering of bell times to create more full-time bus driver assignments and more flexible work rules, the review team estimates that 401 general education driver assignments and 155 special education driver assignments were between six and seven hours in the 2010-11 bus schedules for the regular school year. If a comparable number of driver assignments in the 2012-13 school year could be scheduled more efficiently by one additional hour each, a total 76 bus driver assignments could be saved (55 general bus drivers and 21 special bus drivers).

- The number of bus drivers with more efficient scheduling based on additional staggering of bell times and more flexible work rules, is more than the number of additional bus drivers required to fill 54 vacated positions when drivers are promoted to lead driver (see Recommendation 5-

6.2). The additional drivers (32 general bus lead drivers and 22 special bus lead drivers) should replace lead drivers.

Fiscal Impact

Cost reductions are based on reducing the minimum hours per school day from six hours to four hours during the regular school year; reducing the minimum hours per school day from six hours to four hours during the summer sessions; and reducing overtime hours. The fiscal impact of each of these opportunities to reduce operating cost is estimated by multiplying the bus driver paid hours saved by the median pay rate for the driver by type of route (general or special) to estimate cost reductions for direct labor costs. The median rate in 2010-11 for general education bus drivers was $17.54 per hour and for special education drivers, $20.81 per hour. Additional cost reductions for payroll benefits are 33.48 percent for hours during the regular school year and 9.73 percent for hours during the summer session.

To estimate the cost reductions for a reduced number of driver assignments, the review team estimated the average paid hours for each driver (includes scheduled time and paid leave) to be 1,334 per year for a general education bus driver and 1,410 per year for a special bus driver. The hours are based on details for each driver assignment reported by the Transportation Department in a scheduling system report titled *Bell Data*. The fiscal impact is estimated by multiplying the bus driver paid hours saved by the median pay rate for the driver by type of route (general or special) to estimate cost reductions for direct labor costs, adding additional cost reductions for payroll benefits at 33.48 percent, and adding cost reductions for employer paid insurance premiums $6,320 per position per year.

The net cost reductions are $2,850,576 per year beginning 2012-13.

Recommendation 5-6.2	One-Time (Costs) / Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Reduce bus driver minimum to 4 hours – Regular school year	$0	$525,069	$525,069	$525,069	$525,069	$525,069
Reduce bus driver minimum to 4 hours – ESY	$0	$808,145	$808,145	$808,145	$808,145	$808,145
Cost reductions - overtime pay	$0	$697,317	$697,317	$697,317	$697,317	$697,317
Decrease in number of drivers staggered bell times (76)	$0	$3,027,421	$3,027,421	$3,027,421	$3,027,421	$3,027,421
Increase drivers to replace lead drivers (54)	$0	($2,207,376)	($2,207,376)	($2,207,376)	($2,207,376)	($2,207,376)
Total	**$0**	**$2,850,576**	**$2,850,576**	**$2,850,576**	**$2,850,576**	**$2,850,576**

Recommendation 5-6.3: Develop guidelines to facilitate the least restrictive mode of transportation for special needs students.

The director of the Transportation Department stated the goal of the department is to provide every special needs student with an opportunity to use the least restrictive mode of transportation to school. When the least restrictive mode can be the general school bus, the Transportation Departments works with the Special Education Department to attempt to assign special needs students to a general education bus route. When a student can ride the general school bus instead of using a special education bus, the Transportation Department can reduce operating costs.

During the 2010-11 school year, the Transportation Department conducted a pilot program to demonstrate the benefits of providing access for special needs students to general education bus routes. The coordinator for special education transportation worked with the Special Education Department to identify 200 students that could take part in the demonstration project. The demonstration involved the student catching a general education bus to school from a corner stop near home (as opposed to door-to-door service on special education transportation). Additionally, a peer program was established where each special needs student taking part in the pilot was partnered with a general education student. The general education student was asked to ride with the special needs student as long as required to ensure the special needs student could successfully board and exit the bus at the appropriate times and locations. The demonstration resulted in a reduction in the number of buses used to transport students. The department leadership believes that the pilot program was successful. Of the 200 students who participated in the demonstration, 20 returned to special education transportation. Eighty percent of the students participating in the demonstration successfully transitioned to general education transportation routes. The Transportation Department, working with the Special Education Department should implement this type of program throughout the district to reduce operating costs for student transportation. The transition is a long-term change in culture, but a guidebook with best practices and examples of successful initiatives could expedite the process.

This recommendation can be implemented with existing resources by continuing the same partnerships and best practices used for the demonstration in 2010-11. Successful demonstrations of the transition of special needs students from special education transportation to general education transportation will provide encouragement to others. Each year that additional special needs students successfully transition from special education transportation to general education transportation, the Transportation Department will be closer to the goal to provide every special needs student with an opportunity to use the least restrictive mode of transportation to school.

A goal to transition 180 students using special education transportation to general education transportation each year for five years will mean that as many as 900 students (or about 10 percent of the current number of students using special education transportation) would have the opportunity to use a less restrictive mode for home to school transportation. However, each year some students will graduate and leave the school district or elect to transfer back to special education transportation. Table 5-6.4 illustrates the estimates for special needs students transitioning to general transportation each

year and cumulative. The estimates assume 10 percent of students each year choose to no longer use the general transportation service and an additional 10 percent leave the district due to graduation or transfer (resulting in a total of 20 percent fewer each year after the initial transition).

Table 5-6.4. Special needs students transitioning to general transportation each year and cumulative*

First Year Transition	2011-12	2012-13	2013-14	2014-15	2015-16
2011-12	**180**	144	115	92	74
2012-13		**180**	144	115	92
2013-14			**180**	144	115
2014-15				**180**	144
2015-16					**180**
Total Special Needs Students on General Transportation	**180**	**324**	**439**	**531**	**605**

*Note: Estimate assuming 180 students transitioning from special transportation to general transportation each year and assuming 20 percent of students each year no longer use general transportation for a variety of reasons.

Fiscal Impact

The budget for operations for special education transportation was $42.2 million in 2010-11 to transport on average 8,926 special needs students to and from school daily. The Transportation Department staff included 600 drivers for special transportation routes. On average, each driver transports about 15 students each day per bus special transportation route (8,926 divided by 600). The cost of special transportation in 2010-11 was approximately $70,000 per special bus route driver ($42.2 million divided by 600). These costs reflect only the cost of transportation operations for the bus drivers and transportation aides and the supervision and management of school bus services. The expenses for vehicle maintenance, investigations and training, routing and scheduling, and information technology are not included.

By comparison, the 2010-11 budget for operations for general transportation was 800 bus drivers and $33.9 million to transport on average 96,856 general education students to and from school daily. This represents a budget of approximately $42,000 per general bus route driver ($33.9 million divided by 800).

On average, the Transportation Department could save $70,000 per year for every 15 students who use general transportation instead of special transportation. However, the cost reductions for special education can be achieved only if a route is actually reduced for each group of 15 students that use general transportation. In practice, special transportation must be responsive to each individual special needs student, so a route may not always be saved for every 15 students. To be conservative, the fiscal impact assumes a special transportation bus route can be saved for every 18 students who move to general transportation. The calculations for cost reductions are the total number of special needs

students transitioned to general transportation each year, divided by 18 per special bus route driver saved, times $70,000 cost reductions per bus route. There is no incremental cost for a student to use general transportation as long as any route accommodation does not increase the number of bus routes and drivers required.

Recommendation 5-6.3	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Develop guidelines to facilitate the least restrictive mode of transportation for special needs students.	$0	$700,000	$1,260,000	$1,680,000	$2,030,000	$2,310,000
Total	**$0**	**$700,000**	**$1,260,000**	**$1,680,000**	**$2,030,000**	**$2,310,000**

Outsource Student Transportation

Over the past 20 years of rapid growth, CCSD has struggled to recruit and hire the number of employees needed to provide education and support services for students. This was particularly true for student transportation employees. To attract bus drivers, CCSD offered a generous pay and benefits program that remains in place today. However, the district's growth period ended and projections show relatively flat enrollment levels for future years. The aggressive pay and benefits program no longer appears to be necessary and represents "above market" rates for this type of job function. Outsourcing student transportation operations represents a viable alternative to reduce its cost of transportation services to market levels, and many school districts around the country have chosen this option.

A private contractor can save costs for home-to-school transportation by offering transportation at a lower cost per bus route or a lower cost per bus per day. The review team has extensive experience analyzing costs for both public and private school transportation programs. A contractor can lower costs because the private sector generally pays lower wages per employee and offers a set of benefits that is not as generous as the benefits offered by a public school district. Since labor represents the majority of the cost for the student transportation program, lower wage rates and benefits generally mean lower total costs. A private contractor may also employ different work rules that help to reduce cost. For example, a private contractor typically uses part-time bus drivers and will offer fewer paid days for personal leave than the public school district.

Recommendation 5-6.4: Consider outsourcing transportation service to reduce total cost.

If CCSD does not implement the recommendation to revise bus driver work rules to increase scheduling efficiencies and generate cost reductions, CCSD should consider outsourcing transportation services to reduce costs. The scope of services recommended for outsourcing is transportation operations, which includes managers, supervisors, bus drivers, and transportation aides to operate school bus services. Expenses for vehicle maintenance, investigations and training, routing and scheduling, and information technology are not included in this analysis. The review team believes that the most significant cost

reductions can be achieved by contracting transportation operations but retaining the functions for routing and scheduling service, maintaining the buses, and ensuring quality control of the contractor through investigators and trainers working for CCSD.

Cost reductions are one benefit should transportation services be outsourced. However, there may be other reasons to consider contracting transportation operations to a private contractor, including:

- Contractors can negotiate more flexible terms for bus driver work rules.
- The private contractor will be responsible for managing bus driver attendance.
- Performance clauses can be included into the contract to ensure quality of services.
- Incentive clauses can be incorporated in the contract to increase cost-efficiency.
- The private contractor can be required to implement an appropriate cost accounting system to monitor cost-efficiency and cost-effectiveness and to monitor and control cost by function and service category.

CCSD can confirm the opportunity to save costs by outsourcing through a request for expression of interest by private contractors. A request for expression of interest will help to determine if the local market is competitive. If there are not a sufficient number of prospective bidders, privatization may not generate enough competition to produce price advantages. The Transportation Department and the Purchasing and Warehousing Department can prepare a request for expression of interest with existing staff resources.

If the district determines there is merit in the idea of outsourcing, the next steps for implementation are to prepare a request for proposals (RFP). Working with the CCSD Purchasing and Warehousing Department, the Transportation Department should invest either staff resources or contract for consultant assistance to assist with the formal procurement process. Whether completed internally, or contracted to an external consultant, the following steps should be included in the procurement process:

- Prepare comprehensive contract specifications. The specifications must be carefully prepared to cover all of the services to be provided by the contractor during the length of the contract. The specifications should include standards to measure and monitor contractor performance.

- Include incentives for high performance and penalties for unsatisfactory performance. The contract for services should contain incentive clauses that encourage contractors to find ways to reduce costs while maintaining high quality services in accordance with performance standards. The contract should also allow the district to levy penalties against the contractor if performance does not meet standards.

- Plan for workforce transition and employee impact. Transportation employees would understandably be affected by a decision by the district to contract student transportation to a private contractor. The transition may create concerns about employment status, pay, benefits,

and working conditions. Employees who have been with the district for several years may have additional concerns about loss of seniority and protection of retirement benefits. The district can include core requirements and propose contractual terms and conditions in the RFP, such as offering first option on positions in order of seniority and providing a transition period from the district to the contractor to allow employees to seek employment with the contractor or elsewhere.

- Determine the cost impact of accrued benefits or transfer of retirement benefits. The district may incur up-front costs for a change in labor structure if the employee benefits include an obligation to pay out accrued benefits such as accumulated paid leave. The district may also have some costs associated with transfer of retirement benefits to a new employer, if that is the policy. To accurately estimate final cost reductions if student transportation operations are outsourced, the Human Resource Division and the district's legal counsel will need to determine the district's financial obligation to employees whose jobs are eliminated as a result of outsourcing. The cost of accrued benefits and transfer of retirement benefits, if any, is not included in the estimate of cost reductions for this recommendation.

- Develop an employee transition plan for implementation involving the employees and their representatives as much as possible. The district should keep employees informed and listen to concerns. The communication process should start before the request for proposals is issued.

- Finalize policy decisions before requesting proposals. The district should evaluate issues and make important policy decisions about employee status before requesting proposals, and these policy decisions should be reflected in the RFP requirements.

- Decide the contract term of performance. The district should determine the preferred length of the contract for a private provider of transportation operations. The recommended length should be balanced between a longer contract (which typically allows contractors to amortize startup costs over a longer period and thereby offer a more competitive price) and a shorter contract (which protects the district's options to change contractors or to modify the terms of the agreement based on an evaluation of performance). A common term of performance for contracted transportation services is three years with several two-year renewal options.

- Require the contractor to provide a complete transition plan. Successful privatization requires sufficient time for transition to new management. The contractor should provide a detailed plan for the transfer of responsibilities from the district to the new management team. The transition period can be difficult if attempted mid-year. The district should consider the value of starting the contractor at the beginning of a new school year.

- Establish performance measures and contractor performance reporting as an integral part of the contract. CCSD will need to closely monitor services provided by a contractor and measure performance against agreed upon standards. These should be an integral part of the contract document, along with requirements for periodic performance reporting against contractual

standards. Contractor compensation, including performance-based rewards and penalties, should be specified in the contract documents.

Fiscal Impact

The review team estimated the cost reductions possible by outsourcing transportation operations after researching other privately contracted transportation programs and interviewing representatives of private school bus contractors active in the western United States.

The financial assumptions for the transportation operations function of the CCSD Transportation Department are detailed below. The 2011-12 budget for general transportation operations is $21,325,400 million, and the budget for special transportation operations is $38,755,200 million, for a total $60,081,000 million (rounded to nearest $1,000).

- The CCSD budget for 577 general bus drivers, 569 special bus drivers, and 227 transportation aides in 2011-12 is $54,572,000.

  In 2010-11, the CCSD median wage rate was $17.54 for general education bus drivers, $20.81 per hour for special education bus drivers, and $15.15 per hour for transportation aides. On average, CCSD pays each general bus driver for 1,334 hours per year, including an average 114 hours per year paid leave. CCSD pays on average 1,410 hours per year for each special bus driver, including an average 112 hours paid leave. Transportation aides are paid on average 1,218 hours per year.

- The CCSD budget for salaries and benefits for 58 supervisory personnel and other labor related expenses in 2011-12 is $4,281,000.

- Expenses including professional services in 2011-12 are budgeted at $956,000, plus about $272,000 in other labor expense such as summer workers.

- The CCSD Transportation Department reported an attrition rate for bus drivers of about 10 percent per year average for the last three years.

The financial assumptions for outsourcing the transportation operations function for the CCSD Transportation Department are detailed below. The estimated 2012-13 expenses for a private contractor are $53,596,000 or a cost reduction of $6,485,000 the first year. Based on the assumptions, a private contractor will generate an additional 2 percent cost reductions each subsequent year.

- Private school transportation contractors would expect to hire the existing bus drivers and transportation aides from the public school district at the same or nearly the same wages per hour. The CCSD median wage rate in 2010-11 was $17.54 for general education bus drivers, $20.81 per hour for special education bus drivers, and $15.15 per hour for transportation aide.

- The private school transportation contractor will hire new and replacement employees at a lower rate per hour. The estimated rates are $12.00 to $14.00 per hour for general transportation, approximately two dollars per hour higher for special education and $10.00 to $12.00 per hour for transportation aides, depending on the local market and the types of skills required.

- The contractor expects an attrition rate of about 10 percent per year. This rate of attrition is consistent with the CCSD Transportation Department records for the last three years.

- The estimate of private contractor paid hours for either former CCSD employees or new hires is calculated using actual assignment time and does not include paid time for personal leave. Private contractor allocation for paid leave benefits is addressed below. Based on 2010-11 information for CCSD bus driver and transportation aide scheduled assignments, the average bus driver assignment was 1,220 hours per year for general education bus drivers and 1,298 hours per year for special education drivers. Transportation aides were scheduled on average 1,206 hours per year.

- Managers, supervisors, and other administrative personnel working in transportation operations for the CCSD Transportation Department will be eligible to be hired by the private contractor, generally at a competitive salary. The private contractor does not necessarily have the same staffing levels as the public school district. For the purposes of this analysis, the private contractor is assumed to reorganize the supervisory staff as reflected in Recommendation 5-6.1. The reorganization represents a reduction in supervisory staff from 58 to 39 positions. The analysis assumes the private contractor will pay the remaining staff salaries that are comparable to the school district.

- The total contractor cost for benefits will be lower than the CCSD benefits. The contractor's percent payroll benefits will include similar requirements as the school district for Medicare, unemployment, and workers' compensation insurance; however, the benefits ratio for other benefits (health insurance, paid leave) will be lower. The private contractor ratio for percent total benefit (payroll benefits, health, and including paid leave) is typically about 40.5 percent. This compares to the CCSD ratio for payroll benefits (33.48 percent) and health insurance ($6,320/year per person, which is an average 25.24 percent for drivers and aides) for a benefits ratio for drivers and aides of 58.72 percent. In addition, on average, 7.15 percent of the annual wages paid to each CCSD driver and aide is compensation for paid leave.

- Direct expenses including professional services are estimated as $956,000, consistent with CCSD budgeted cost.

- Ten percent of the total cost for payroll and benefits is assumed as the private contractor cost for corporate overhead and profit.

Table 5-6.5 compares the CCSD budget for transportation operations in 2011-12 to the estimated cost reductions if the same function is outsourced to a private contractor in the following four years.

Table 5-6.5 CCSD transportation operations budget compared to estimated cost reductions

	CCSD Budget 2011-12	Private 2013-14	Private 2014-15	Private 2015-16	Private 2016-17
Salaries	$2,933,000	$2,210,000	$2,210,000	$2,210,000	$2,210,000
Wages	$34,383,000	$31,131,000	$30,392,000	$29,660,000	$28,932,000
Benefits	$12,493,000	$13,498,000	$13,199,000	$12,903,000	$12,608,000
Employer Premium Health	$9,044,000	incl above	incl above	incl above	incl above
Expenses	$1,228,000	$956,000	$956,000	$956,000	$956,000
Corporate Overhead and Profit		$4,684,000	$4,580,000	$4,477,000	$4,375,000
Total	$60,081,000	$52,479,000	$51,337,000	$50,206,000	$49,081,000
Cost reductions		**$7,602,000**	**$8,744,000**	**$9,875,000**	**$11,000,000**
Percent Cost reductions vs. 2011-12		-12.7%	-14.6%	-16.4%	-18.3%

Source: CCSD Transportation Department

The fiscal impact for contracting transportation operations is summarized below. The one-time cost for professional services to assist the district to outsource transportation operations is estimated as $79,000 in professional services plus $10,000 expenses. The first year the cost reductions for a private contractor are offset by start-up expenses estimated at approximately two percent of the value of the contract for the first year.

In subsequent years, additional cost reductions are due to the 10 percent additional new hire employees each year (due to attrition) at lower wages.

Recommendation 5-6.4	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Professional services for procurement	($89,000)	$0	$0	$0	$0	$0
Contractor start-up	($1,050,000)	$0	$0	$0	$0	$0
Contractor cost reductions for transportation operations	$0	$0	$7,602,000	$8,744,000	$9,875,000	$11,000,000
Total	**($1,139,000)**	**$0**	**$7,602,000**	**$8,744,000**	**$9,875,000**	**$11,000,000**

Section 7 – Food Services

The CCSD food service operation is funded separately from most other school operations (which are supported by the district's General Fund). In recent years the financial stability of the food service operation has been substantially improved, and for the past three years has operated at a surplus after several years of deficits. This was due to food services management implementing staffing changes, menu changes and other strategies that increased productivity and meal participation rates. The Food Service Department (Food Services) has developed a 5-year plan towards increasing participation, maintaining solvency and making necessary capital purchases for kitchen equipment, trucks, trailers and other necessary equipment.

The General Fund at CCSD incurs costs on behalf of the food service operation and a significant portion of those costs are not currently allocated to Food Services. This section addresses the ability of CCSD to achieve General Fund cost reductions by allocating (to the Food Services Fund) $5.8 million in additional costs for custodial service, utilities and other costs associated with food services in the district. Several strategies, discussed in further detail on the following pages, will need to be implemented for food services to generate sufficient surpluses to be able to absorb these costs.

The CCSD Food Service Department serves approximately 155,000 lunches and 44,000 breakfasts daily at 327 elementary and secondary school cafeterias. Elementary school lunches are prepared centrally and delivered to students as either individual serving menu or dish-up meals.

- **Individual Serving Menu** (**ISM**) are meals prepared in the Food Service Department's central kitchen facility, packaged in individual portions, and delivered frozen to elementary schools. Meals are then re-heated on site and served to students. Each meal typically includes an entrée plus side dishes of fruit, vegetables, dessert, and milk.

- **Dish-up** meals are prepared in bulk portions in the central kitchen facility, frozen, and transported to each school. The school cafeteria staff re-heats the food, keeps it warm in steam tables, and serves the meals as students pass through the lunch line. Dish-up meals are similar to those offered as individual servings.

Each secondary school cafeteria operates a full-preparation kitchen and offers a choice of entrées and side dishes. In addition to standard meal choices, secondary schools also offer Grab 'n Go lunches which decrease the wait time and offer more variety for older students. Other meal serving methods are offered to special student populations or school types. Less than 2 percent of total meals are served through these alternative methods.

The remainder of this section provides additional background information and explains the recommendation to allocate certain General Fund expenditures to the food service operation in order that it covers all costs incurred for its benefit. Table 5-7.1 summarizes the recommendation for the Food Service Department.

Table 5-7.1. Recommendation summary

Recommendation Summary	Priority	Timeframe	Five-Year Fiscal Impact	Major Investment Required	Major Policy Changed Required
Allocate allowable General Fund costs to the Food Service Fund	High	2012-13	$26,100,000	No	No
Total			**$26,100,000**		

Organization

The CCSD Food Service Department is led by a director, and one coordinator oversees the creation of menus, nutrition policy, the central kitchen operation and all special programs operated within the department. Another coordinator is responsible for overseeing all budgeting and accounting for the department's financial operations.

A food service senior supervisor oversees all school operations, while another meets with prospective suppliers, tests and evaluates new products for possible inclusion on the menus, and develops bid specifications. A technical support manager keeps all computers, software, and the network running properly while an industrial arts supervisor responds to all food service equipment repair requests from the schools, reviews and approves all new kitchen construction and manages all kitchen rehabilitation projects. A food service warehouse supervisor orders, receives, stores, and ships all food products and supply items to schools.

A fleet of 27 trucks deliver food and supplies to each school cafeteria, including schools in Mesquite, Virgin Valley, Bunkerville, Logandale, Indian Springs, Blue Diamond, Sandy Valley, Goodsprings, Searchlight, and Laughlin.

As shown in Table 5-7.2, the Food Services Department employs 1,450 employees in the central kitchen operations and at the school cafeterias. In addition to regular and part-time staff, the department also employs student workers as needed each year. The number of student workers may vary widely depending on school needs.

Table 5-7.2. Food Service Department staff

Staff Area	Number
Managerial	5
Administrative, professional and clerical	33
Warehouse and drivers	55
Central kitchen staff	23
School-based cafeteria staff	

Staff Area	Number
Supervisors	25
Kitchen labor	603
Temporary kitchen workers	706
Total	**1,450**

Source: CCSD Food Service Department, 2011

Financial Operations

Food Service has reversed it losses in 2007-08 and 2008-09 and achieved a surplus in the last two fiscal years. At the time of this study, the financial results for 2011 were not finalized, but a net surplus of $11 million was expected. Food costs and personnel costs, as a percentage of total revenues, have steadily declined as Food Service has streamlined operations and reduced staff levels. Although participation rates remained fairly stable from 2007 to 2010, participation in 2011 improved significantly (see Table 5-7.3). As a result, revenues and surplus for 2011 significantly exceed levels of prior years.

Table 5-7.3. Food Service Department financial operations

	2007	% of Revenue	2008	% of Revenue	2009	% of Revenue	2010	% of Revenue	2011*	% of Revenue
Revenues	$80,072,317		$86,587,538		$85,935,596		$89,383,276		$78,758,771	
Salaries, wages and benefits	$35,181,717	*43.9%*	$39,404,071	*45.5%*	$38,854,129	*45.2%*	$35,053,588	*39.2%*	$28,736,247	*36.5%*
Food costs	$42,539,322	*53.1%*	$39,652,606	*45.8%*	$32,262,366	*37.5%*	$31,888,384	*35.7%*	$30,604,844	*38.9%*
Services and supplies	$2,608,575	*3.3%*	$11,132,826	*12.9%*	$10,665,187	*12.4%*	$11,435,546	*12.8%*	$4,563,123	*5.8%*
Other Expenses	$3,880,465	*4.8%*	$3,884,515	*4.5%*	$4,107,741	*4.8%*	$5,624,611	*6.3%*	$2,887,080	*3.7%*
Net surplus (deficit)	**$(4,137,762)**	***N/A***	**$(7,486,480)**	***N/A***	**$46,173**	***0.1%***	**$5,381,147**	***6.0%***	**$11,967,477**	***15.2%***
Avg. enrollment	290,019		292,401		284,145		299,477		310,198	
Avg. participation (lunch)	45.4%		47.4%		45.5%		43.6%		49.3%	

Source: CCSD Food Services Department, 2011

*Note: Results for 2011 represent only 10 months in fiscal year 2010-11.

Despite these overall positive operating results, Table 5-7.4 shows that financial results for individual schools still vary widely. In general, most elementary school cafeterias operate at surpluses while most secondary schools break even or run deficits. This is because the participation rate is higher in elementary schools than it is in secondary schools.

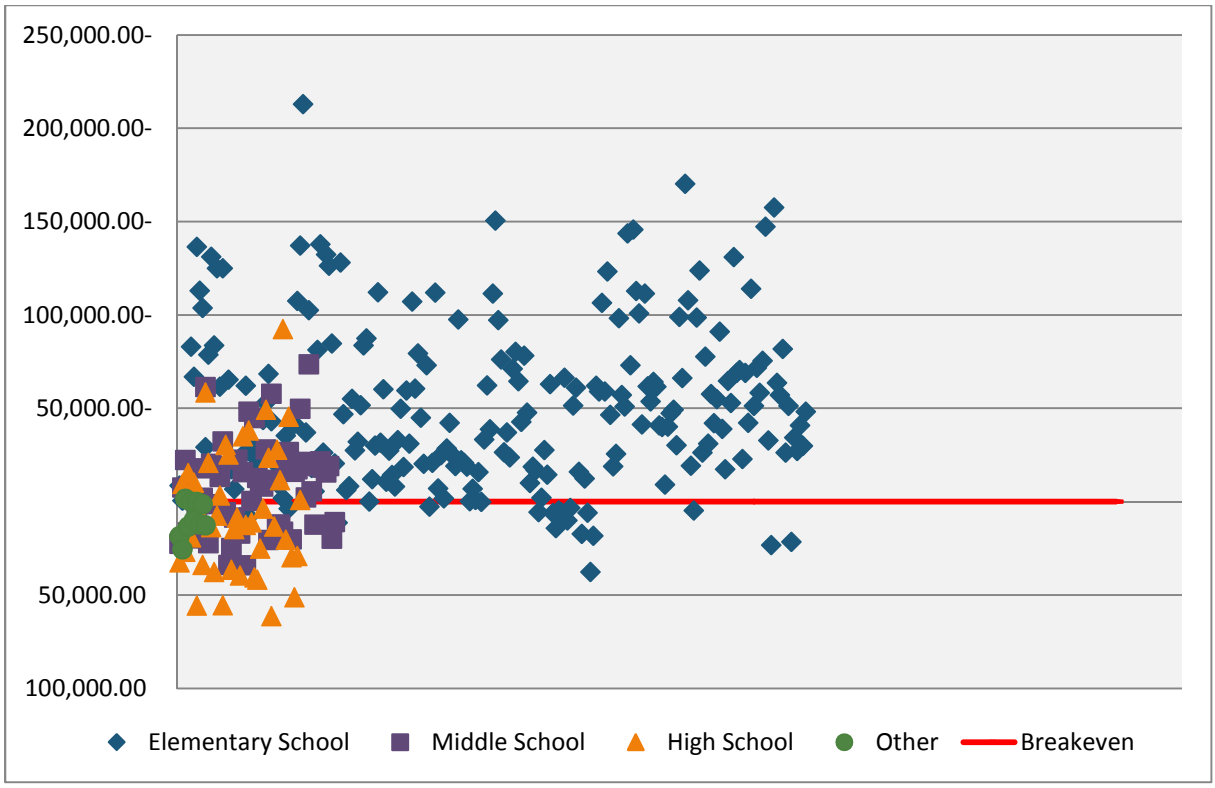
Table 5-7.4. Net surplus (deficit), fiscal years 2009-10 and 2010-11

School Type	FY 2009-10	FY 2010-11
Elementary schools	$2,292,237	$10,828,590
Middle schools	$24,120	$423,895
High schools	($1,125,281)	($234,465)
Other schools	($166,421)	($163,885)
Administrative areas	$4,356,492	$1,113,342
Total Surplus	**$5,381,147**	**$11,967,477**

Source: CCSD Food Service Department, 2011

Figure 5-7.1 shows a scatter graph of operating results for all CCSD schools during FY 2011. Schools with positive financial results (revenues in excess of expenses) are shown above the “Break-even” line. In 2011, 45 secondary schools food service operations fell below the break-even point. A total of 77 schools (all schools combined) fell below break-even in 2011.

Figure 5-7.1. FY 2010-1111 CCSD food service operating results



Source: CCSD Food Service Department, 2011

Operations

As noted above, CCSD operates a central kitchen in Clark County. This method of meal preparation offers the most efficient means of serving a population of CCSD's size. National standards for employee productivity suggest that central kitchens such as CCSD's are 15 to 20 percent more efficient than conventional model of having a full-service kitchen in each school.

Labor Productivity

Table 5-7.5 shows standards used by the industry to measure productivity of school cafeteria operations in terms of meals per labor hour. If this productivity measure for a given kitchen is lower than the recommended standard, then either the number of meals served is relatively low (given the capacity of existing staff) or the total number of staff-hours worked is relatively high. The number of hours worked is a function of two variables: the number of staff employed at each location and the hours worked per staff member. For schools with a MPLH below industry standards, the school's food service operation can develop strategies to achieve the recommended productivity level, including:

- Increase the number of meals served while maintaining existing staff levels
- Decrease the number of staff-hours worked daily by reducing staff counts or adjusting the work schedule to reduce overall staff hours

Table 5-7.5. Industry standard recommended meals per labor hour

Number of Equivalents	Low Productivity	High Productivity
Up to 100	10	12
101–150	11	13
151–200	12	14
202–250	14	15
251–300	15	16
301–400	16	18
401–500	18	19
501–600	18	19
601–700	19	20
701–800	20	22
801–900	21	23
901 up	22	23

Source: Pannell-Martin (1999)[70]

The CCSD Food Service Department calculates meals per labor hour for all its school cafeterias on a regular basis using actual meals served and hours worked by staff during the period. As shown in Table 5-7.6, CCSD's average productivity is substantially higher than the above standards for almost all its schools, particularly elementary schools.

Table 5-7.6. Average productivity by cafeteria type

Cafeteria Type	Average Meals per Labor Hour
Individual Serving Menu	58.1
Dish-up Menu	40.5
Middle Schools	32.3
High Schools	24.4
Other schools	20.8

[70] Pannell-Martin, D. (1999). *School foodservice management for the 21st century* (5th edition). Alexandria, Virginia: inTEAM Associates, Inc.

Cafeteria Type	Average Meals per Labor Hour
Overall – all schools	**43.8**

Source: CCSD Food Service Department, 2011

The review team recalculated MPLH for fiscal year 2010-11 using financial data provided by the Food Service Department. For this analysis, the following was assumed:

- Equivalent meals were calculated based on $2.74 per meal (the federal lunch reimbursement rate).
- Labor hours were determined based on total labor costs associated with each school's cafeteria divided by an average pay rate of $19.23 per labor hour (average labor cost including benefits).

This analysis resulted in 271 out of 327 (or 82.9 percent) schools exceeding the recommended productivity standard (Convenience System – High Productivity) corresponding to the size of each school. Fifty-six schools (or 17.1 percent) fell below those corresponding standards. The majority of schools falling below the standard rate were middle schools (17 out of 55 total middle schools) and high schools (28 out of 43).

Participation Rates

High school cafeteria participation rates and sales have improved markedly in recent years. In 2009 the average high school participation rate was 16 percent. In 2009-10, it was 19 percent and in 2010-11, it was 25 percent.

Recommendation 5-7.1: Allocate allowable General Fund costs to the Food Service Fund.

CCSD charges the food services fund for reimbursement of administrative expenses and overhead through an approved indirect cost rate. This charge is calculated annually and includes only central administration and fiscal services costs. For fiscal year 2010-11, these allocated General Fund expenses equaled 1.7 percent of direct costs of food services. This allocation does not include expenditures related to custodial services, utilities or waste removal that are incurred by the General Fund for the benefit of the food services operation.

In accordance with federal guidelines, CCSD should allocate expenditures incurred for the benefit of the food service operation to the Food Services Fund. As a practical matter, many expenses paid from the General Fund are directly attributable (and therefore allocable) to Food Services operations. Typical expenses include energy costs and pest control costs associated with the kitchen and cafeteria, expenses for disposal of food and other waste from the cafeteria, and personnel costs for custodians charged with cleaning the cafeteria and kitchen during or after breakfast and lunch.

The portion of these expenses that relate directly to food services should be calculated through direct tracking or estimating and allocated to the Food Service Department on an annual basis in order that

financial reports portray a complete and accurate picture of the actual revenues and expenses associated with food services operations.

Because it is difficult to isolate the exact portion of certain food service-related expenses (disposal fees and utility costs, for example), estimates must be developed of the amount of each expense that relates to food services, based on measures relevant to each expense type.

For example, to allocate the cost of custodians, the district can use estimates based on the square footage of kitchen and cafeteria floor space or based on the estimated time spent by custodians setting-up before meals, policing the cafeteria during meals, and cleaning-up after meals. Utility costs can be allocated on the basis of the square footage of kitchen and cafeteria floor space. Estimates of disposal expenses can be based on the relative quantities of food, paper and other supplies disposed of daily compared with the quantity of classroom and office waste.

The review team obtained allocable expenditures from CCSD financial records for 2010-11. For custodial services and utilities, the basis for allocation was the estimated square footage of cafeteria space relative to the total square footage of the school and the estimated percentage of time the cafeteria is not used for other purposes. For disposal costs, the allocation is based on the estimated cafeteria waste to total waste for the school.

Table 5-7.7. Allocation of expenses related to food services

Area	Expense Base	Allocation Methodology	Expense Allocation (rounded)
Custodial Services	$78,654,265	▪ 5% of square footage relates to cafeteria ▪ 50% of time cafeteria space is not used for other purposes	$2,000,000
Utilities	Gas – $4,580,358 Electricity – $47,896,329 Total – $52,476,687	▪ 5% of square footage relates to cafeteria ▪ 50% of time cafeteria space is not used for other purposes	$1,300,000
Disposal	$5,096,702	▪ 50% of non-recycled waste is originated in the kitchen/cafeteria	$2,500,000
Total			**$5,800,000**

Source: CCSD, Food Service Department

These costs can and should be absorbed by the Food Services Department, freeing up General Fund amounts for other district priorities.

Fiscal Impact

The five-year cost reduction projections assumes that the Food Service Department will continue to achieve a sufficient level of surplus including any capital investments or other one-time expenditures. During 2011-12, the district should monitor and record the use of cafeteria space and non-recycled

waste to confirm that the above percentages are reasonable. This fiscal impact assumes that 50 percent of the costs in Table 5-7.7 will be allocated in 2012-13 and the full amount in subsequent years.

Recommendation 5-8.1	One-Time (Costs)/ Reductions	2012-13	2013-14	2014-15	2015-16	2016-17
Allocate allowable General Fund costs to the Food Service Fund	$0	$2,900,000	$5,800,000	$5,800,000	$5,800,000	$5,800,000
Total	**$0**	**$2,900,000**	**$5,800,000**	**$5,800,000**	**$5,800,000**	**$5,800,000**

To ensure that the cost allocation can be sustainable in future years, the Food Service Department should analyze the reasons for negative operating results for certain schools, and take corrective action to further improve school financial performance.

The department should also continue its efforts to review the analysis of MPLH based on the simplified method of calculation and determine if adjustments can be made in work schedules or personnel assignments to achieve higher levels of productivity. Other reasons for deficits, such as higher food costs, should also be examined to determine whether waste or other preventable issues are accounting for the variances. The Food Service Department should base staffing decisions on the expected level of sales for each school in order to reduce or eliminate operating deficits at each school.

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