

School Efficiency Review of Fluvanna County Public Schools



PRISMATIC
SERVICES, INC.

112 South Old Statesville Road
Suite 201
Huntersville, NC 28078 USA
Info@PrismaticServices.com
704.438.9929 (voice)
832.201.0424 (fax)

School Efficiency Review
of
Fluvanna County Public Schools
April 2014



“Planning is bringing the future into the present so that you can do something about it now.”

-Alan Lakein



Table of Contents

1	Introduction	1
	A. Methodology	1
	B. Acknowledgements	2
	C. Report Organization	2
2	Divisional Administration.....	5
	A. Division Management.....	8
	B. Procedures	16
	C. Planning, Budgeting, and Evaluation	17
3	Educational Service Delivery.....	25
	A. Organization and Management	26
	B. School Administration and Decision-Making	31
	C. Curriculum Policies and Management	33
	D. Special Programs	36
4	Human Resources	45
	A. Organization and Management	48
	B. Policies and Procedures.....	53
	C. Recruitment, Hiring, and Retention.....	57
	D. Staff Development	59
	E. Compensation and Classification Systems	62
5	Facilities Use and Management.....	75
	A. Organization and Management	77
	B. Plans, Policies, and Procedures	84
	C. Maintenance Operations	88
	D. Custodial Operations	92
	E. Energy Management.....	94
	F. School Safety and Security.....	98
6	Financial Management.....	107
	A. Organization and Staffing.....	111
	B. Financial Performance.....	113
	C. Planning and Budgeting	120
	D. Policies, Procedures, and Use of Administrative Technology	124
7	Transportation.....	135
	A. Organization and Staffing.....	139
	B. Planning, Policies, and Procedures.....	148
	C. Routing and Scheduling.....	154
	D. Training and Safety.....	157
	E. Vehicle Maintenance and Bus Replacement Schedules	159
8	Technology Management	167
	A. Organization and Staffing.....	170
	B. Staff Development	174

	C. Instructional and Administrative Technology.....	176
	D. Technology Planning and Budgeting.....	178
	E. Technology Policies and Procedures	186
	F. Inventory Control	187
	G. Systems Infrastructure and Integration	191
	H. Technical Support and Help Desk Operations	198
	I. Technology Acquisition, Donation, and Surplus Practices	198
9	Food Services	201
	A. Organization and Staffing.....	203
	B. Policies, Procedures, and Compliance.....	208
	C. Planning and Budgeting	212
	D. Management and Facility Operations	215
	E. Qualifying Students for Free and Reduced-Price Meals.....	217
	F. Student Participation.....	221
	G. Nutrition and Nutrition Education Programs	227
	Appendix A – Facility Master Planning	A-1
	Appendix B – Food Services Manual	B-1
	Appendix C – Peer Comparisons	C-1
	Appendix D – Recommendations and Commendations.....	D-1

Introduction

In 2003, the Commonwealth of Virginia announced several initiatives to address a host of childhood and adult education needs, including the School Efficiency Review initiative. The purpose of the reviews is to identify savings that can be gained through best practices in other non-instructional areas, so that savings can be redirected to the classroom in better service of Virginia's school children. To date, 39 school efficiency reviews have been completed under this initiative.

The Virginia Department of Planning and Budget (the Department) contracted with Prismatic Services, Inc., in October 2013 to complete the 40th school efficiency review, of Fluvanna County Public Schools (FCPS). This report is provided in fulfillment of that contract.

FCPS is located in the piedmont region of central, southeast of Charlottesville. With the recent construction and consolidation, the division has five schools and a total enrollment of approximately 3,700. In recent years, the division has struggled with declining student enrollment and repeated budget reductions. Nearly 30 percent of FCPS students qualify for free- or reduced-price meals, an indicator of the level of poverty in the division. Approximately 17 percent of FCPS students are identified as having a disability.

A. Methodology

Prismatic used an 11-step work plan to conduct this school efficiency review:

1. Initiate project.
2. Conduct initial meeting.
3. Complete initial comparative analyses.
4. Conduct fieldwork:
 - a. Review divisional administration.
 - b. Review educational service delivery costs.
 - c. Review human resources.
 - d. Review facilities use and management.
 - e. Review financial management.
 - f. Review transportation.
 - g. Review technology management.
 - h. Review food services.
5. Develop interim briefing document.
6. Develop first draft report.
7. Complete internal quality control.
8. Review exposure draft report.
9. Develop final report.
10. Present report.
11. Submit concluding documents and close project.

Prismatic provided a team of eight consultants, as well as clerical and technical staff. The project manager and one consultant completed the initial meeting and advance visit to the division November 6-7, 2013 to collect initial documentation and make logistical arrangements for the full team visit. The advance team also interviewed a number of the division's leaders to gather initial opinions on the efficiency and effectiveness of operations.

The full team completed fieldwork January 13-17, 2014. The consultants interviewed school board members, county administrative staff, and key division staff members. The consultants also conducted focus groups of various staff groupings, collected additional documentation, toured division facilities, and observed daily operations. All FCPS facilities were visited at least once by a consulting team member; most were visited multiple times.

All consulting team members adhered to the requirements of the Department's *Protocol Manual*. The *Protocols* provide a thorough blueprint for assessing operations in the division under review.

Peer comparisons are made throughout the report. Peers were selected in consultation with the FCPS superintendent and approved by the Department. The peers selected were:

- Greene County;
- King George County;
- Louisa County;
- Madison County;
- Orange County; and
- Warren County.

B. Acknowledgements

Prismatic acknowledges the assistance of the following individuals in the preparation of this report:

- Superintendent Gena Keller;
- Mr. Ed Breslauer, director of finance;
- Mr. Jamie Stafford, receptionist; and
- Ms. Brandi Critzer, secretary to the superintendent.

Prismatic also thanks the many other division department heads and staff members who provided time, assistance, observations, and data for this review.

C. Report Organization

Unless otherwise noted, all references to years in this report indicate schools years, which are also the fiscal years of the school division. For example, "2012-13" refers to the school year 2012-13 which ran from July 1st through June 30th. All dollars presented in cost or savings projections are shown in 2014 dollars; inflation factors and cost-of-living adjustments are not included for future years.

The remaining chapters of this report are organized by review area, as organized in the *Protocol Manual*:

- Chapter 2: Divisional Administration;
- Chapter 3: Educational Services Delivery;
- Chapter 4: Human Resources;
- Chapter 5: Facilities Use and Management;
- Chapter 6: Financial Management;
- Chapter 7: Transportation;
- Chapter 8: Technology Management; and
- Chapter 9: Food Services.

Divisional Administration

This chapter addresses the division management, procedures, planning, budgeting and evaluation of Fluvanna County Public Schools (FCPS) in the following sections:

- A. Division Management
- B. Procedures
- C. Planning, Budgeting, and Evaluation

The organization and management of a school division involves cooperation between elected members of the board of education and staff of the division. The school board's roles are to establish goals and objectives for the division in instructional and operational areas, determine the policies that the division will govern, approve the plans to implement policies, provide the funding sources necessary to carry out plans, and evaluate the results of the plans.

Once the school board adopts goals and objectives for the division, it is the responsibility of the superintendent and staff to establish administrative policies and procedures to achieve the desired results. That achievement involves recommending the hiring and retention of employees, as well as ongoing communication with the community to ensure a clear understanding of the goals and the division's efforts to accomplish them.

Background

Fluvanna County, located in the central portion of the Commonwealth of Virginia, is approximately 60 miles west of Richmond and 25 miles east of Charlottesville. The county seat is located at Palmyra, in the center of the county. Fluvanna is a predominantly rural county and as of the 2000 census, the population was 20,047. At the 2010 census the population had grown to 25,691, an increase of 28 percent. Much of the recent growth in Fluvanna County occurred around Lake Monticello as a bedroom community for residents who commute to either Charlottesville or Richmond for work. There is no further major development ongoing or anticipated in the county.

With the recent construction and consolidation, FCPS has a total enrollment of approximately 3,700.

The FCPS mission statement and defined goals are as follows:

Mission: to provide quality education whereby all students acquire the skills, knowledge, and values necessary to develop into responsible and productive citizens of the 21st century.

Vision: An educational partnership comprised of highly qualified educators, responsive learners, supportive parents, and a community dedicated to lifelong learning through responsibility and respect.

Four Strategic Priorities:

- *Provide a quality education to all of our students.*

- *Build a culture that is conducive to learning in a safe and nurturing environment.*
- *Foster relationships with our community.*
- *Operate in an effective and efficient manner*

Exhibit 2.1 provides an overview of FCPS with the peers selected for this study. On average, FCPS is slightly smaller than the peer average and has one less school.

**Exhibit 2.1
Comparison to selected peer school systems**

School Division	End-of-Year Membership Count	Total Number of Schools
Greene County	2,904	5
King George County	4,094	5
Louisa County	4,601	6
Madison County	1,826	4
Orange County	5,009	9
Warren County	5,316	8
Peer Division Average	3,958	6
Fluvanna County	3,736	5

Source: 2011-12 VDOE Superintendents Annual Report.

Exhibit 2.2 compares FCPS and the peers on several factors related to student populations and their special needs. FCPS had the lowest free- and-reduced-priced lunch eligibility and the lowest percentage of economically disadvantaged, but the highest percentage of students with disabilities.

**Exhibit 2.2
Factors related to student population needs**

School Division	% Free/Reduced Lunch	% Economically Disadvantaged	% Students with Disabilities
Greene County	37.5%	39.4%	13.3%
King George County	30.8%	32.0%	11.8%
Louisa County	46.0%	47.9%	16.6%
Madison County	38.4%	38.2%	9.8%
Orange County	45.7%	46.0%	9.3%
Warren County	40.0%	41.3%	11.6%
Peer Division Average	39.7%	40.8%	12.1%
Fluvanna County	29.6%	29.9%	17.2%

Source: 2011-12 VDOE Superintendents Annual Report.

Exhibit 2.3 indicates that FCPS had somewhat higher total administrative staffing when compared to peer divisions but similar principal and assistant staffing. In comparison to the two peers that are closest in ADM, Greene County and King George County, FCPS had more division administrative positions, respectively. It was in the middle of Greene and King George in terms of principals and assistants per 1,000 students.

Exhibit 2.3
Administration staffing comparisons

School Division	End-of-Year Membership Count	Total Division Administration	Principals and Assistants per 1,000 students
Greene County	2,904	15.1	4.1
King George County	4,094	12.5	2.7
Louisa County	4,601	20.6	3.9
Madison County	1,826	12.0	3.2
Orange County	5,009	16.4	3.3
Warren County	5,316	13.1	3.8
Peer Division Average	3,958	15.0	3.5
Fluvanna County	3,736	17.8	3.4

Source: 2011-12 VDOE Superintendents Annual Report.

Exhibit 2.4 indicates that FCPS was in the middle of the peer group in terms of administrative spending per pupil and just slightly below the peer average. The division had the third-highest instructional spending per pupil and also spent \$382 more per pupil than the peer average.

Exhibit 2.4
Administration and instruction spending comparison

School Division	Administration Spending per Pupil	Instruction Spending per Pupil
Greene County	\$ 383	\$ 7,573
King George County	\$ 149	\$ 6,440
Louisa County	\$ 264	\$ 7,753
Madison County	\$ 398	\$ 7,010
Orange County	\$ 220	\$ 6,111
Warren County	\$ 180	\$ 6,391
Peer Division Average	\$ 266	\$ 6,880
Fluvanna County	\$ 254	\$ 7,262

Source: 2011-12 VDOE Superintendents Annual Report.

In total, the consulting team gave four commendations in this chapter:

- The board and superintendent process the board agenda jointly with input from staff and share it electronically, saving time and resources.
- The FCPS school board has a robust process for reviewing and updating policies.
- The board and superintendent work to maintain professional relationships with the board of supervisors for the benefit of the division and community.
- The board has adopted an effective comprehensive plan with strategic priorities, developed with input from staff and the community and incorporating Deming's Total Quality Model including the Plan, Do, Check, Act process.

The consulting team also made eight recommendations in this chapter:

- Discontinue maintenance of hard copies of the policy manual.
- Strengthen the board’s relationship with the countywide leadership program, and encourage and promote the participation of leaders within FCPS, both staff and students.
- Improve the division’s central office organization and document it.
- Formalize the decision making process through an operational definition, regulation, and procedure so it is clear, concise, and understood throughout the division.
- Develop the necessary departmental manuals to guide staff, internal and external customers, and maintain a level of consistency and constancy.
- Utilize research on what makes an effective school board.
- Require every department to develop a continuous improvement based upon the same model used by the schools, which includes industry recognized standards of performance and best practices.
- Expand the data provided to the board to include the fiscal impact of the ADM variance.

The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal impacts for those recommendations are not shown here.

Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
2.5	Strengthen relationship with countywide leadership program.	\$0	(\$500)	(\$500)	(\$500)	(\$500)	(\$500)	(\$2,500)

A. Division Management

Virginia state education laws, as codified by the Code of Virginia and division policies, establish the powers and responsibilities of the division school board and the superintendent in § 22.1-1 through 22.1-7.1 and § 22.1-71 through 22.1-87. Each chapter provides legal guidance for school division governance and operations. Key duties prescribed include establishing board policies, building and operating schools and related facilities, and contracting for an annual audit of all division and school activity funds.

The Code of Virginia also addresses the size and election of school boards and § 22.1-76 provides a description of the required officers for school boards. The FCPS board consists of five elected members, all serving staggered four-year terms (**Exhibit 2.5**). Three members were up for reelection in 2013 according to information available through the Virginia State Board of Elections. One member ran unopposed, one had a formal challenge, and one had a challenger through an organized write in campaign.

**Exhibit 2.5
FCPS board members**

Board Member	District
Ms. Camilla Washington, Chair*	Columbia District
Ms. Bertha Armstrong**	Fork Union District
Ms. Carol Tracy Carr*	Rivanna District
Ms. Brenda Pace, Vice-Chair**	Palmyra District
Mr. Charles Rittenhouse*	Cunningham District
Ms. Brandi Critzer, School Board Clerk	

*Note: *= reelected in 2013, **= up for reelection in 2015
Source: Compiled by Prismatic, 2014.*

The school board clerk is appointed annually based upon the recommendation of the superintendent per board policy. The board clerk also serves as the secretary to the superintendent.

The Fluvanna County School Board holds regular meetings at 6:30 p.m. with a Closed Session beginning at 5:30 p.m. on the second Wednesday of each month in the Auditorium at the School Board Office. The board adheres to board policy BCE to not have standing committees.

The superintendent of a school division serves as the chief executive officer and is the administrative leader responsible for policy implementation and day-to-day operations. The FCPS superintendent, Ms. Gena Cook Keller, has 20 years of experience in public schools and has served as the FCPS superintendent for four years.

FINDING 2.1

The board chair and the superintendent maintain open lines of communication, and speak frequently. The board chair and superintendent have a process to build the board agenda and plan together. There is consensus as related to the resolution of conflict and the board is active in professional development through the VSBA, board retreats, and work sessions.

Based upon interviews it is apparent the board chair and the superintendent maintain open lines of communication, and speak frequently. The board chair and superintendent have a process to build the board agenda and plan together. The superintendent seeks input from the leadership team, meets with the chair, who solicits input from board members and they put together an agenda. Agendas are shared electronically with board members via iPads.

COMMENDATION

The board and superintendent process the board agenda jointly with input from staff and share it electronically, saving time and resources.

FINDING 2.2

The division has a robust policy for reviewing and updating policies. The board is aware of their responsibility to govern and leave management to the administration. The FCPS maintains and distributes a policy manual, supplemented by administrative

regulations, both online and in hard copy throughout the division. The board subscribes to the VSBA policy service and updates policy as required by the state as well as local needs.

The school board subscribes to the VSBA policy service. The board takes its responsibility, defined in board policy BF - Board Policy Manual, and BFC - Policy Adoption, seriously. The board has a regulation for revisions to existing policy and development of new policy that involves two formal readings at board meetings, feedback and conversations with the administration.

The responsibility to oversee the revision and development of policy has been delegated to the finance director. The finance department, headed by the finance director, is charged with reviewing the budget process and updates to policy. The staff advisory council made up of 12 staff members is charged with providing input related to policy impact. The finance director’s description of policy revision as follows:

- The board receives policy updates via the VSBA.
- The director customizes the policy to meet the needs of the FCPS.
- The policy is presented to the board for a first reading.
- The board provides feedback and directives for revision.
- Board feedback is incorporated.
- The policy is brought before the board for a second reading.
- If the board is satisfied with the policy, it is approved.
- The director determines if regulations are needed.
- With the input and consent of the superintendent he develops the regulations.
- All policies manuals (electronic as well as hard copy) are updated.

An assessment of the policy manual indicates there are 305 policies accompanied by 16 regulations. The policies are organized by standard sections; foundations and basic commitments, school board governance and operations, general school administration, fiscal management, support services, facilities development, personnel, instructional program, students, school-community relations, and education agency relations. The policies have been revised from 1996 to the present, as shown in **Exhibit 2.6**. There are 16 regulations. Fifteen of the 16 regulations have been developed since 2010.

Exhibit 2.6
FCPS policy revision over time

Time Frame	# of Policies	% of Policies
1996-2000	40	13%
2001-2005	52	17%
2006-2010	91	30%
2011-2013	96	21%
Unrevised	28	9%

Source: FCPS policy manual, compiled by Prismatic, 2014.

COMMENDATION

The FCPS school board has a robust process for reviewing and updating policies.

FINDING 2.3

The division is maintaining copies of the policy manual in hard copy and online; however, the hard copies are not updated timely and some are not complete. Since the policy manual is available online, there is no need to continue to update paper-based copies. The division could provide courtesy hard copies of specific policies as requested by stakeholders.

RECOMMENDATION 2.3

Discontinue maintenance of hard copies of the policy manual.

The superintendent should notify all current recipients of hard copy policy manuals that they will no longer be updated.

FISCAL IMPACT

Implementing this recommendation will save a small amount of staff time and some copying costs but will benefit from decreasing the possibility that stakeholders refer to outdated policies.

FINDING 2.4

The board and superintendent are actively working to improve intergovernmental relationships between the school board and the board of supervisors. The school board and board of supervisors are engaged in joint planning and work sessions. The superintendent is planning to provide monthly updates at meetings of the board of supervisors.

In a fiscally dependent relationship, it is essential that the school board and superintendent actively working to maintain and improve relationships; and the school board and superintendent are doing that. The school board and board of supervisors conduct joint work sessions related to the budget and other needs. The superintendent meets with and works with the county administrator to work on issues of mutual concern and importance. Likewise other members of the superintendent's leadership team meet and work with members of the county administration.

The superintendent has plans to provide updates related to school issues more frequently moving forward. The Munis implementation is an important project both entities are working on jointly and collaborating on.

COMMENDATION

The board and superintendent work to maintain professional relationships with the board of supervisors for the benefit of the division and community.

FINDING 2.5

The board is reaching out to the community to develop support for the goals, objectives, programs, and initiatives of the division. The division is engaging retirees through a volunteer program. The board's engagement with Fluvanna Leadership Development has the potential to further build support.

Engagement with Fluvanna Leadership Development helps build understanding, relationships and support. The participation is consistent with the board's belief statement regarding community and business involvement and the board's goal of promoting community confidence by partnership, and strategic priority fostering relationships with the community. **Exhibit 2.7** shows what the school board's program included last year.

Exhibit 2.7 Division program for the Fluvanna Leadership Development Program

Class 11: EDUCATION: School System Overview

Date: Thursday, January 16, 2014

Time: 6:30 PM to 9:00 PM

Location: School Board Office

Champions: Rudy Garcia & Shirley Stewart

Speakers: Gena Keller (Superintendent of Schools) and Camilla Washington (School Board Chair)

Educational STRATEGIC PLANNING- Moving from Haphazard, Excellent Practices to Sustainable and Systemic.

In June, 2011, the Fluvanna County School Board met to begin the process of Strategic Planning. During their work session, the School Board spent time reviewing data, revisiting the "Mission, Vision, and Beliefs" of Fluvanna County Public Schools, then engaging in a dialogue related to identifying their priorities for Fluvanna County Public Schools. This resulted in the school system adopting the following four priorities:

1. Provide a quality education to all of our students.
2. Build a culture that is conducive to learning in a safe and nurturing environment.
3. Foster relationships with our community.
4. Operate in an effective and efficient manner.

Tonight's class will explain what adopting those priorities means to us and the process the School System went through in part one of tonight's class. Part two of the class will be a small group activity where the class gets to add to the knowledge base by working through the same process with a School System Facilitator.

Source: FCPS, January 2014.

RECOMMENDATION 2.5

Strengthen the board's relationship with the countywide leadership program, and encourage and promote the participation of leaders within FCPS, both staff and students.

The board should expand the division's presence in the program by:

- sponsoring two employees to participate, one a building level or department level administrator, and one a teacher who has been identified as having administrative interest and potential;

- sponsoring two students to participate, one junior and one senior, considered to be leaders with the division;
- have each participant in the class shadow a building level administrator for one day to develop a general understanding for the operations of the schools prior to the formal class; and
- reimburse the four participants for the registration and incidental expenses associated with participation, upon their successful completion of the program and their presentation of what they learned and how they benefited from the program to the school board.

FISCAL IMPACT

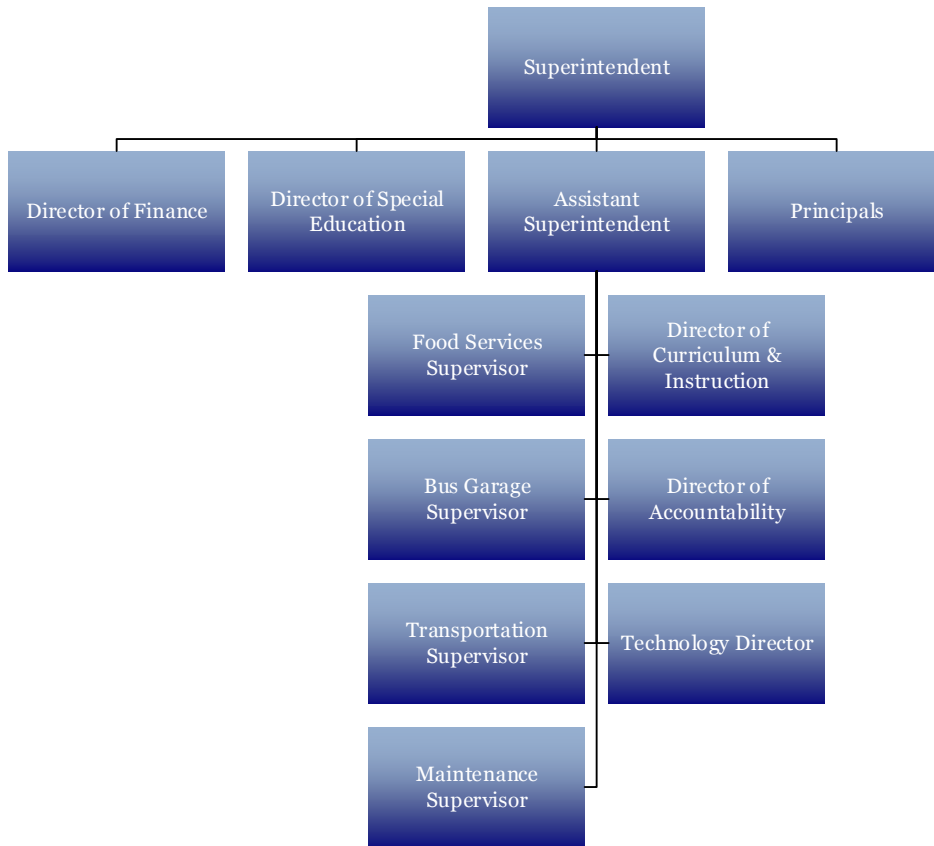
The registration fee is \$25 per participant and the consulting team estimates an annual travel stipend of \$100 will be needed per participant (there are 12 meetings).

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Reimburse for participation in the county leadership program.	(\$500)	(\$500)	(\$500)	(\$500)	(\$500)

FINDING 2.6

The current central office organizational structure could be improved. Staff disagreed on the actual current top line of the organization chart (direct reports to the superintendent). Staff also noted that the middle of the central office organization was sometimes “fuzzy.” The current organization of the central office is in **Exhibit 2.8**.

**Exhibit 2.8
Current FCPS organizational chart**



Source: Compiled by Prismatic, 2014.

There is a shared perception among staff that an ad hoc team composed of the superintendent, assistant superintendent, and finance director deal with finance, money and operations and that the superintendent, assistant superintendent, director of curriculum, and director of testing and accountability deal with instructional matters, with additional input as needed.

RECOMMENDATION 2.6

Improve the division’s central office organization and document it.

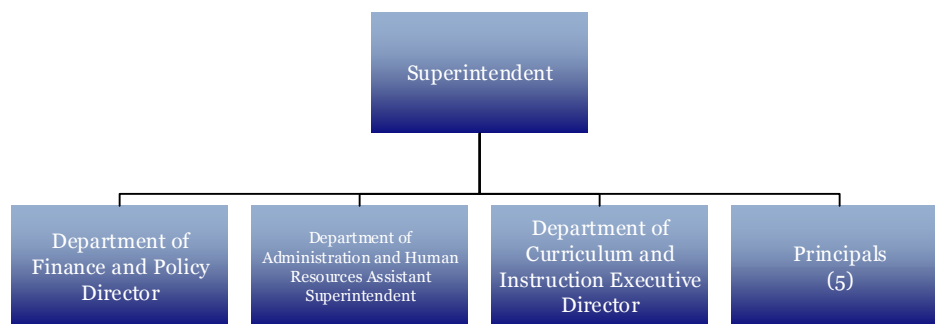
An organizational chart provides structure and hierarchy, defines the chain of command and relationships. The chart also indicates whether an organization, as well as decision-making, is centralized or decentralized. The vertical illustrates who has the authority to supervise, and delegate. The horizontal divides the organization into divisions.

The consulting team recommends that the division improve the structure of the central office by:

- establishing these positions as direct reports to the superintendent: finance and policy, administration and human resources, curriculum and instruction, and principals;

- placing policy within the finance department, since the finance director has already been designated informally as the staff member responsible for the development and revision of policy;
- placing food services within the finance department to better focus on the finances of the food services program and to free the assistant superintendent to focus on other matters;
- separating the administration and human resources areas from curriculum and instruction; and
- designating the director of curriculum as the head of the department with a change in title from director to executive director (**Exhibit 2.9**).

Exhibit 2.9
Recommended direct reports to the superintendent



Source: Prismatic, 2014.

Other changes within departments are handled in the remaining chapters of this report.

FISCAL IMPACT

This recommendation only changes reporting relationships and job responsibilities. These can be done without cost other than perhaps some time spent among leadership in clarifying roles and responsibilities.

FINDING 2.7

Prior to the current administration, the FCPS utilized a site-based model of management and decision making. The current model is described as a shared decision-making model, with some site-based aspects. The superintendent and impacted staff meet to set and discuss goals and objectives, performance, budgeting, and planning. Everyone on the administrative team is involved in these discussions. In addition, the superintendent is beginning to implement Jarvis’ Four Quadrants of Leadership and developing a consistent decision-making model.

RECOMMENDATION 2.7

Formalize the decision making process through an operational definition, regulation, and procedure so it is clear, concise, and understood throughout the division.

The superintendent’s decision-making model should be shared in a clear and concise

manner, and made part of the standard operating procedures of the division, with necessary training provided pertaining to the model.

FISCAL IMPACT

This recommendation can be implemented during regular administrative meetings.

B. Procedures

Once the school board develops policies, it is incumbent on the superintendent to direct the creation and implementation of efficient, effective procedures. Likewise, each department head directs the use of regular operating procedures to handle daily work tasks in an efficient and consistent manner.

FINDING 2.8

There are school-based handbooks, and a few manuals and directions online to define procedures within departments, but there are no across the board manuals documenting standard operating procedures, or administrative processes and procedures. The division has handbooks for a few areas: for Title I, Academic Expectations, Teacher Evaluation, and Instructional Support Evaluation. Some individual schools also have handbooks. There are a series of documents available through Human Resources that could be incorporated into an employee handbook.

Departmental manuals would help maintain consistency of processes throughout the division and would make staffing transitions easier. They would also help with cross training.

RECOMMENDATION 2.8

Develop the necessary departmental manuals to guide staff, internal and external customers, and maintain a level of consistency and constancy.

The assistant superintendent of administration and human resources should be tasked with auditing all department manuals (including support services) to determine the exact need for site-based handbooks, department procedural manuals, and more. Once the need is determined, the assistant superintendent and the site leader or department leader should plan to produce the appropriate handbooks. Once the handbooks and manuals are complete they should be made available via the appropriate links on the division website.

FISCAL IMPACT

The amount of time required of the assistant superintendent and site/department leaders to implement this recommendation will depend on the results of the audit of all department manuals.

C. Planning, Budgeting, and Evaluation

The Virginia Board of Education has published a set of goals based on broad input in a strategic planning process. The goals are designed to give direction to all public schools in Virginia:

- **Goal 1: Accountability for Student Learning** -- The Board of Education will support accountability for all public schools by establishing policies that help schools increase the academic success of all students, especially those who are at-risk or in underperforming school systems. Incorporating student academic progress and narrowing of achievement gaps into the accountability system will provide for a more comprehensive identification of student achievement at each school.
- **Goal 2: Rigorous Standards to Promote College and Career Readiness**
- **Goal 3: Expanded Opportunities to Learn** -- The Board of Education will put in place policies and initiatives that expand learning opportunities for all children. These policies and initiatives will include high-quality charter schools, college partnership laboratory schools, online learning programs, and Governor's Science, Technology, Engineering, and Mathematics (STEM) academies. Such learning opportunities provide options for parents and students while allowing communities and educators to create innovative instructional programs that can be replicated elsewhere in the public school system.
- **Goal 4: Nurturing Young Learners** -- The Board of Education will work cooperatively with partners to promote new and innovative partnerships that help to ensure that all children enter kindergarten with the skills they need for success in school.
- **Goal 5: Highly Qualified and Effective Educators** -- The Board of Education will establish policies and standards that strengthen the preparation, recruitment, and retention of the best and brightest educators, including meaningful and ongoing professional development, especially in teacher shortage areas and in hard-to-staff schools.

The VDOE requires in accreditation standard six that FCPS initiate and sustain a long-range planning process. The Commonwealth requires that division plans include:

- the objectives of the school division including first; strategies for improving student achievement particularly of at risk students, then maintaining high achievement;
- an assessment to the extent of which these objectives are being achieved;
- a forecast of enrollment changes;
- a plan for projecting and managing enrollment changes including consideration of the consolidation of schools to provide for a more comprehensive and effective delivery of instructional services to students and economies in school operations;
- an evaluation of the appropriateness of establishing regional programs and services in cooperation with neighboring school divisions;
- a plan for implementing such regional programs and services when appropriate;
- a technology plan designed to integrate educational technology into the instructional programs of the school division, including the school division's career and technical

education programs, consistent with, or as a part of, the comprehensive technology plan for Virginia adopted by the Board of Education;

- an assessment of the needs of the school division and evidence of community participation, including parental participation, in the development of the plan;
- any corrective action plan required pursuant to § 22.3-253.13:3;
- a plan for parent and family involvement to include building successful school and parent partnerships that shall be developed with staff and community involvement, including participation by parents.;
- a report shall be presented by each school board to the public by November 1 of each odd-numbered year on the extent to which the objectives of the division wide comprehensive plan have been met during the previous two school years; and
- each public school shall also prepare a comprehensive, unified, long-range plan, which the relevant school board shall consider in the development of its division wide comprehensive plan.

FINDING 2.9

The division has stated vision, mission, and general goals. In September 2013, the school board adopted a comprehensive plan as mandated by the Commonwealth of Virginia. In addition, the school board adopted four strategic priorities to further guide the division over the next six years. It appears the comprehensive plan is driving the division and driving the process referred to as the Strategic Planning Process.

When there is a discussion of the ‘Strategic Plan’, interviewees reference the plan and the strategic priorities. The comprehensive plan contains general goals and objectives; it is to be monitored and updated every two years; and it requires annual improvement plans be developed for the schools’ and revised quarterly. It outlines strategies to ensure compliance and make progress.

COMMENDATION

The board has adopted an effective comprehensive plan with strategic priorities, developed with input from staff and the community and incorporating Deming’s Total Quality Model including the Plan, Do, Check, Act process.

FINDING 2.10

The board works with the superintendent to set the annual and long-term goals and objectives for the division but does not evaluate its own performance, either individually or as a governing body. Currently the school board does not conduct an evaluation of its performance, even though Board Policy AFA, revised April 14, 2004 requires an annual review. The review is to identify the strengths and weaknesses of the board; board members shall develop an instrument and process; individual board members shall confidentially complete and submit the instrument to the board chair to be compiled; all board members must be present to review and discuss the composite results; the board shall draw conclusions based on objective evidence; and the board shall develop short and long terms goals as needed to maintain areas of excellence, improve weaknesses, and improve efficiency.

A recent study published by the Center for Public Education cites eight characteristics of effective school boards. ¹ **Exhibit 2.10** shows the eight characteristics. An effective self-evaluation instrument could be based on these eight characteristics.

¹ <http://www.centerforpubliceducation.org>

Exhibit 2.10
Eight characteristics of effective school boards

Characteristic
<p>1. Effective school boards commit to a vision of high expectations for student achievement and quality instruction and define clear goals toward that vision:</p> <ul style="list-style-type: none"> a. establishing “non-negotiable goals” (that is, goals all staff must act upon once set by the board) in at least two areas: students achievement and instruction goals; b. having the board align with and support division goals; c. monitoring goals for achievement and instruction; and d. using resources to support achievement and instruction goals.
<p>2. Effective school boards have strong shared beliefs and values about possibilities for students and their ability to learn and of the system and its ability to teach all students at high levels:</p> <ul style="list-style-type: none"> a. Board members consistently express their belief in the learning ability of all students and give specific examples of ways that learning had improved as a result of division initiatives; b. poverty, lack of parental involvement and other factors are described as challenges to be overcome, not as excuses; c. board members expect to see improvements in student achievement quickly as a result of initiatives; and d. comments made by board members are indicative of the differences. In a high-achieving division, one board member noted, “This is a place for all kids to excel.” Another board member noted, “Sometimes people say the poor students have limits. I say all have limits. I believe we have not reached the limits of any of the kids in our system. Low achieving divisions make excuses for kids.
<p>3. Effective school boards are accountability driven, spending less time on operational issues and more time focused on policies to improve student achievement.</p>
<p>4. Effective school boards have a collaborative relationship with staff and the community and establish a strong communications structure to inform and engage both internal and external stakeholders in setting and achieving division goals.</p>
<p>5. Effective boards are data savvy; they embrace and monitor data, even when the information is negative, and use it to drive continuous improvement.</p>
<p>6. Effective school boards align and sustain resources, such as professional development, to meet division goals.</p>
<p>7. Effective school boards lead as a united team with the superintendent, each from their respective roles, with strong collaboration and mutual trust:</p> <ul style="list-style-type: none"> a. a trusting and collaborative relationship between the board and superintendent; b. creation by the board of conditions and organizational structures that allowed the superintendent to function as the chief executive officer and instructional leader of the division; c. evaluation of the superintendent according to mutually agreed upon procedures; and d. effective communication between the board chair and superintendent and among board members.
<p>8. Effective school boards take part in team development and training, sometimes with their superintendents, to build shared knowledge, values, and commitments for their improvement efforts.</p>

Source: Prismatic, February 2014.

RECOMMENDATION 2.10

Utilize research on what makes an effective school board.

The school board should seek assistance from the Virginia School Board Association (VSBA) regarding training and leadership of a renewal effort.² The board should work with the VSBA to develop a self-assessment tool in compliance with the spirit and intent of board policy. While standard tools are available through the VSBA, current policy directs the board to develop an instrument. The development of an instrument ensures it will consider the specialized needs of the FCPS.

FISCAL IMPACT

If the school board decides to do a self-evaluation utilizing assistance from the VSBA, the cost will depend on how much the school board does on its own, and how much training and facilitating is needed.

FINDING 2.11

Every school has a continuous improvement plan based on Deming's Total Quality Management model, but departments do not. All schools adhere to the same model. Progress is monitored throughout the year and reported to the school board. However, FCPS departments, such as human resources, finance, special education, student support services, maintenance, transportation, and custodial services, do not have similar plans. Extending the concept of continuous improvement plans along with the Plan, Do, Check, Act model to every department across the division would develop a focus on effective and efficient management across the division.

High-performing departments routinely compare their performance over time and to various benchmarks. The Council of Great City Schools (CGCS) has developed a robust set of measures for various departments in a school division central office. **Exhibit 2.11** provides a listing of the CGCS key performance indicators for a finance department as an example. Although FCPS is not a member of the CGCS, these benchmarks could still be used to assess departmental improvement over time.

² VSBA Board Development and Training. *Virginia School Boards Association*. Retrieved from <http://www.vaschoolboards.org/images/uploads/BoardDevWhitepages.pdf>

Exhibit 2.11
Sample of CGCS finance department key performance indicators

Subarea	Key Performance Indicators
Accounts Payable	AP department costs per \$1,000 of AP dollars spent
	Cost per invoice
	Number of days to process a vendor payment
	Invoices processed per FTE per month
	Non-PO invoices processed per FTE per month
	Voided checks per total checks
Cash Management	Fund reserves as percent of total revenue
	Short-term loans per \$1,000 operating expenditures
	Investment earnings per \$1,000 revenue
	Actual investment yield above/below benchmark
	Weighted average yield
	Cash on hand (average month-end) per \$1,000 revenue
	Months below target liquidity baseline
	Fund reserves above/below division policy

Source: <http://www.cgcs.org/domain/86>

RECOMMENDATION 2.11

Require every department to develop a continuous improvement based upon the same model used by the schools, which includes industry recognized standards of performance and best practices.

Each department should:

- establish ad hoc teams to work on developing the continuous improvement plans;
- determine their primary function, the indicators that will be used to measure performance, and identify their internal and external customers;
- establish a baseline performance level and goals related to improving performance in identified areas; and
- measure and report improved performance just as the schools do.

FISCAL IMPACT

The consulting team estimates that identified department heads will need to spend the equivalent of several weeks on initiating the implementation of this recommendation. After that, continuous improvement efforts should become part of the regular work of the departments.

FINDING 2.12

There have been some concerns that differences persist in the average daily membership (ADM) used to project the operating budget and the actual ADM.

The difference is reported to the board monthly, but the financial impact and a recommendation concerning how to deal with the impact is not provided. The current FCPS difference is approximately 30 students.

Data related to average daily membership, which drives funding, is shared monthly with the school board, and is available for use in planning and making budget adjustments, but the financial impact is not clearly articulated, nor are alternatives to address the budget impact included. The current 30-student gap in FCPS is not out of line with peer divisions, as shown in **Exhibit 2.12**. There is typically a variance between the September, March and end-of-year ADM figures. It would unrealistic to expect a division to perfectly forecast ADM every year.

**Exhibit 2.12
Comparisons of ADM variances**

Division	30SEPT10 ADM	31MAR11 ADM	End-of- Year ADM (2010-11)	Actual Minus Projected	Percent Variance
Greene County	2,829	2,795	2,835	6	0.2%
King George County	4,142	4,098	4,077	(65)	(1.6)%
Louisa County	4,609	4,557	4,608	(1)	(0.0)%
Madison County	1,800	1,784	1,783	(17)	(0.9)%
Orange County	5,052	5,027	5,032	(20)	(0.4)%
Warren County	5,340	5,295	5,287	(53)	(1.0)%
Peer Average	3,926	3,890	3,902	(24)	(0.6)%
Fluvanna County	3,712	3,673	3,691	(21)	(0.6)%

Source: VDOE Superintendent's Annual Report 2011-12.

RECOMMENDATION 2.12

Expand the data provided to the board to include the fiscal impact of the ADM variance.

As the division is likely facing stagnant or even declining enrollment for the next several years, it will be important to have a transparent, understandable process for addressing this issue. The finance director could include this analysis in the monthly highlights document that is shared with the board.

FISCAL IMPACT

The finance director will likely need less than a week of work to develop the report format, variable definitions, and data sources. Once developed, generating the report each month should require minimal time.

Educational Service Delivery

This chapter provides commendations and recommendations related to four aspects of educational service delivery management in Fluvanna County Public Schools (FCPS):

- A. Organization and Management
- B. School Administration and Decision-Making
- C. Curriculum Policies and Management
- D. Special Programs

School divisions must deliver high quality educational services. Divisions must have detailed processes and procedures in place that align with federal, state, and local mandates. The processes and procedures must drive all curricular and instructional decisions. They must appropriately identify student need, provide educational services to address the needs, measure student performance, and make needed adjustments.

In total, the consulting team gave six commendations in this chapter:

- FCPS ensures teachers have ample student performance data to make appropriate curricular and instructional decisions.
- FCPS is commended for principals' efforts as instructional leaders in their buildings.
- FCPS has adopted and implemented the Academic Expectations Handbook.
- FCPS is commended for decisions that improved services of the alternative education program.
- FCPS has many collaborative opportunities for teachers.
- The division works to provide effective services to its ESL students.

The consulting team also made 10 recommendations in this chapter:

- Add staff positions in curriculum and instruction.
- Implement accountability processes and procedures for holding classroom teachers accountable for using data to adjust curriculum and re-design instruction.
- Implement division-wide decision processes and procedures to ensure general education and special education teachers have input in purchasing instructional materials.
- Develop and implement a comprehensive division-wide process for curriculum review based on student performance data that ensures horizontal and vertical alignment and a system of monitoring and accountability.
- Identify the Professional Learning Communities (PLC) and teacher collaborative practices and implementation procedures that have the greatest impact on student achievement and teacher buy-in within the division, and then share division-wide.

- Implement division-wide lesson planning expectations based on research protocols and recorded on a common planning document.
- Review the literature and define the expectations for implementation of the co-teaching, and develop and adopt clear and concise process and procedures to define the teaching arrangement.
- Review, update, and standardize Response to Intervention (RTI) processes and procedures so implementation is uniform to meet intervention services to all students.
- Implement the gifted program with fidelity.

The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal impacts for those recommendations are not shown here.

	Recommendation	One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
3.1	Add two positions in the instructional department.	\$0	(\$37,500)	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)	(\$3,375,000)
3.12	Improve co-teaching.	(\$3,600)	\$0	\$0	\$0	\$0	\$0	(\$3,600)
3.13	Update RTI procedures.	\$0	(\$6,000)	(\$6,000)	(\$6,000)	\$0	\$0	(\$18,000)

A. Organization and Management

Successful educational services are delivered across all grade levels based on effective and efficient organization and management. Divisions must adequately staff and provide support services to meet all student needs. The organization and management of educational services must include training and support services for instructional staff, content, and program specific resources along with classroom technology. The division must have adequate organizational structure to support both central office responsibilities and school-based personnel.

FINDING 3.1

Staffing in the central office instructional area has been reduced significantly in recent years. Over the past several years, the curriculum and instruction team has lost an elementary director position, coordinator positions in math, gifted services, and literacy, an assistant superintendent of instruction, and instructional technology resource teachers.

As part of the reductions, directors are asked to assume multiple roles that focus on areas from pre-school to 12th grade, across all content areas, and special populations, resulting in the inability of the curriculum and instruction staff to focus and monitor specific areas of need in a consistent and supportive manner.

Exhibit 3.1 shows instructional staffing counts among the peer divisions and FCPS for 2011-12. As shown, the peer division average total was 35.5 instructional positions, while the FCPS total was 19.5 instructional positions. The largest difference was in technical and clerical positions – all of the peers had more of those positions than FCPS.

Exhibit 3.1
Comparison of instructional personnel

School Division	End-of-Year membership count	Instruction Position Counts				Total
		Admin.	Technical and clerical	Instructional support	Other prof.	
Greene County	2,904	4.1	21.7	0.0	2.3	28.1
King George County	4,094	3.0	23.0	5.0	4.0	35.0
Louisa County	4,601	6.1	29.0	4.2	1.1	40.4
Madison County	1,826	3.0	12.8	0.0	0.0	15.8
Orange County	5,009	7.4	29.5	2.0	0.0	38.9
Warren County	5,316	1.1	43.0	10.6	0.0	54.7
Peer Division Average	3,958	4.1	26.5	3.6	1.2	35.4
Fluvanna County	3,736	6.4	10.6	2.1	0.4	19.5

Source: 2011-12 VDOE Superintendent's Annual Report.

Exhibit 3.2 compares instructional staffing job titles among the peer divisions for 2013-14. As shown, position types in curriculum and instruction tends to vary among divisions; there are no best practices to guide organizational development in this area.

**Exhibit 3.2
Comparison of instructional staffing job titles**

	Fluvanna County	Madison County	Green County	King George County	Louisa County	Orange County	Warren County
Assistant Superintendent		<ul style="list-style-type: none"> • asst. superintendent of administration • asst. superintendent of voc. and tech. • asst. superintendent of ed. HR 			<ul style="list-style-type: none"> • asst. superintendent for instruction 		<ul style="list-style-type: none"> • asst. superintendent for administration • asst. superintendent for instruction
Director	<ul style="list-style-type: none"> • director of curriculum and instruction • director of testing and accountability • director of special education • director of student services 	<ul style="list-style-type: none"> • director of instruction 	<ul style="list-style-type: none"> • director of special services 			<ul style="list-style-type: none"> • director of data, testing, and school improvement • director of elementary ed. • direction of secondary ed. • director of head start and pre-school • director of student services and alt. ed. • director of special ed. 	<ul style="list-style-type: none"> • director of professional development • administrative services director • special services director/principal local jail
Coordinator		<ul style="list-style-type: none"> • coordinator of assessment and accountability 		<ul style="list-style-type: none"> • coordinator of testing • coordinator of curriculum 		<ul style="list-style-type: none"> • coordinator of special education compliance • coordinator of gifted and ESL programs 	<ul style="list-style-type: none"> • gifted and talented coordinator • title I and title III coordinator
Supervisor and Other Staff	<ul style="list-style-type: none"> • extended education program staff • adult literacy staff • student services 	<ul style="list-style-type: none"> • student services 		<ul style="list-style-type: none"> • supervisor of special education • data administrator • nurse • guidance/social work services 	<ul style="list-style-type: none"> • guidance • psychological services (3) • social work services 		<ul style="list-style-type: none"> • supervisor of special services • testing instructional specialist • school psychologist • school social worker (2) • LA, history, and foreign lang. spec. • math and science spec.

Source: Prismatic, 2014.



RECOMMENDATION 3.1

Add staff positions in curriculum and instruction.

The consulting team recommends the addition of two staff positions over the next two years. As the division is transitioning to a new financial management system and generally working to develop less-paper intensive processes, these positions should require a high degree of technical competence. These positions could be instructional coordinator or technical support positions within the curriculum and instruction department.

Because of the recent reductions in instructional staffing, the continued demands and instructional requirements, FCPS needs continued study and review of staffing replacement needs. As the organization progresses, the superintendent and instructional team may determine there are additional needs in professional positions in literacy, math, gifted, science, social studies, fine arts, and career and technical education/STEM.

FISCAL IMPACT

The consulting team estimates that adding one instructional staff position would cost FCPS approximately \$30,000, plus benefits of 25 percent. One should be added in 2014-15 and one in 2015-16.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add two positions to the instructional department.	(\$37,500)	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)

FINDING 3.2

FCPS teachers receive student performance data that are pragmatic, useful, and current. The FCPS testing and accountability department delivers timely and accurate student performance results to the building principals. Reports from focus groups and interviews indicated the data are disaggregated and provided in a customized and easy to understand format.

The reports include spreadsheets that detail student performance data as a division, subject area, grade level, sub-group, teacher, and individual student. Reports passed down to the building level provide both school-wide information and drill down to an individual item analysis detailing a student's response to all questions. The data are user friendly and easily analyzed to design student-driven instruction and remediation efforts. The data reports are essential when making instructional decisions that have high impact on improved student achievement.

Virginia's accountability system measures academic rigor through performance on the Standards of Learning (SOL). A division and school's state accreditation rating is reflected in the student achievement in English, history/social science, mathematics, and science. Individual schools receive accreditation ratings based on student performance on the SOL tests taken during the previous academic year and on a three-year average. Schools receive ratings of fully accredited, accredited provisionally, accredited with warning, accreditation denied.

Of paramount importance in a division's organizational and management services is providing instructional staff with student data. Teachers must have access to timely student achievement data in order to adjust curriculum and design instruction to meet the state's expectations. FCPS teachers are provided student performance data that enables them to make timely and appropriate instructional decisions.

COMMENDATION

FCPS ensures teachers have ample student performance data to make appropriate curricular and instructional decisions.

FINDING 3.3

FCPS teachers are inconsistent in the use and application of student performance data. Managing and adjusting the curriculum and pacing guides, based on student performance data, varies among the campuses. FCPS teachers are inconsistent in the use and application of student performance data, even though they receive data in a timely and useable manner. This results in fluctuating performance scores rather than a continuous upward spiral.

The division's middle school is accredited with warning and Carysbrook Elementary is identified as a focus school. Focus group dialog and interviews revealed a wide continuum in the use of student performance to design instruction and remediation at the individual classroom level. The division's teachers do not exhibit consistent buy-in and understanding regarding the value of data, how data drives instruction, and its use to improve student performance. Dialog in all focus groups reported the review of student performance data and identified data as a major talk point on many building level meetings and agendas. Teacher focus groups spoke of data meetings and Professional Learning Communities (PLC) meetings with data as talk points in the agenda. However, teachers expressed minimal understanding of "why" the division participates in so much testing and how data translates into useful information.

RECOMMENDATION 3.3

Implement processes and procedures for holding classroom teachers accountable for using data to adjust curriculum and re-design instruction.

The superintendent, curriculum and instruction team, building principals, classroom specialists and teacher representatives should develop and implement processes and procedures that formalize and standardize the use and application of student performance data. The central office sends useful data but teachers and principals need continued education on its usefulness and classroom application. Central office staff should guide teachers and administrators in a standard process for analysis of data. The central office continually needs to instruct campus staff on exact, detailed, specific steps for direct classroom instructional applications. The expectations and accountability processes for taking data dialogs and discussions to classroom applications and improved student performance must also be clear.

FCPS should review resources and integrate the information into developing and implementing clear, consistent, and practical steps that walk teachers through how both Measures of Academic Progress (MAP) and SOL data are used to impact instruction. Teachers need both rational and practical guidance that continues to lead them to buying

into and implementing data driven instructional decisions. They need to see a direct correlation between how data analysis leads to improved student achievement. Teachers need time, direct instruction and a common process in how to adapt, design, and adjust both curriculum and instructional delivery based on student performance data.

FISCAL IMPACT

Current central office staff and principals should be able to implement this recommendation as part of their ongoing responsibilities.

B. School Administration and Decision-Making

In a division, the individual schools are the core of educational service delivery. This is where most decisions are made regarding instruction. Each site needs adequate administrative and classroom staffing, but also effective and efficient processes and procedures that manage and align school level decision-making.

School level personnel need adequate resources to deliver high-quality instruction, along with accountability to decide how to improving student performance. Division and school level personnel need appropriately designed decision-making processes to ensure the educational and instructional plans, programs, and performance objectives meet high standards of quality and consistency. These processes and procedures must also include and appropriate support and accountability system.

FINDING 3.4

FCPS principals understand the importance of instructional leadership. The principals have varying years of experience in providing instructional leadership. However, the division's principals all strive to hone their skills as instructional leaders. One of the indicators of instructional leadership exhibited in the division is high visibility of the administrator.

During fieldwork, the consulting team observed principals in classrooms, on playgrounds, directing student arrivals and dismissals, conducting meetings, supervising hallways, and visiting with students in lunchrooms. A second indicator of instructional leadership observed in the division was the desire to improve the use of student performance data. Even though principals readily agreed they were not where they wanted to be with their staffs, they understood the high potential impact of using student performance data.

COMMENDATION

FCPS is commended for principals' efforts as instructional leaders in their buildings.

FINDING 3.5

FCPS has developed an Academic Expectations Handbook for elementary literacy and math expectations. The implementation of the handbook standardizes quality instruction for all students in kindergarten through fourth grade. The handbook details curriculum for elementary literacy and math expectations. It provides clear and understandable curriculum components for teachers in literacy and math. The consulting

team found that teachers in these grade levels to be clearly guided by the parameters and expectations outlined in the document. All three elementary campuses work diligently at ensuring that students understand and strive for mastery of the curricular and instructional elements.

In addition to curricular components, the handbook includes detailed accountability measures, academic expectations, and instructional goals. The handbook includes assessment matrices to guide teachers in determining the learning levels of students.

COMMENDATION

FCPS adopted and implemented the Academic Expectations Handbook.

FINDING 3.6

The FCPS alternative education program has undergone recent positive changes and upgrades. The program equips students with academic skills, life skills, and positive behaviors, encouraging them to make better choices. The division's decision to revamp the alternative education program resulted in changing how instruction takes place and refocused the curricular, instructional, and behavioral expectations for students. There is greater focus on improving both the academic performance of students and equipping students with more appropriate life skills and behavioral choices.

The division holds the professional staff highly accountable for effectively and efficiently managing the personnel and instructional programs and improving student performance. The staff works hard to ensure students participating in the program can receive either a standard of advanced studies diploma. The decision to revamp the program also included an intense focus on guiding students to change social behaviors and not revert to dysfunctional choices that previously interfered and disrupted their educational experience. The revised program enlists the continuous support of counselors, social workers, and a psychologist, along with many parent meetings. Region Ten, a regional agency of local government that provides mental health, intellectual disability, crisis, and substance use services, meets regularly with the staff and there is continuous communication with the sending school administrator. All work in concert to equip students for success.

The FCPS alternative education program uses the APEX learning digital curriculum. Three teachers provide support and direct instruction if students need tutorial instruction. The teachers take exceptional interest to ensure students stay on task and academic progress is moving toward expected goals. Along with on-site students, there are students that are home-based; they receive the same support and curricular and instructional services from the alternative education staff. One teacher makes a weekly home visit to monitor student progress in person and assess the homebound situation.

COMMENDATION

FCPS is commended for decisions that improved services of the alternative education program.

C. Curriculum Policies and Management

With increased accountability and high stakes testing, effective curriculum management and policies are critical to a division's success. Due to the multiple subgroups such as ethnicity, disability, socioeconomic status, and limited English proficient, school divisions are finding that data-driven decisions are essential to identifying targeted areas and gap groups in need of improvement. Curriculum management procedures and processes make these decisions operable.

The processes and procedures also manage and evaluate meeting all mandates of federal, Commonwealth, and local requirements. They ensure that all students are showing progress. A division must ensure that curriculum management is effective, monitored, and systematic across the division. Curriculum policies provide the direction and guidance for how the curriculum should be developed, revised, and implemented. Board policy defines the division's goals and expectations. The division must have in place clearly defined and well-managed processes and procedures for directing instruction, designing curriculum, and securing resources to support all educational efforts.

FINDING 3.7

The division could improve its plan for curriculum review, update, and adjustment. The process for reviewing the curriculum and pacing guides differs by campus. There is no consistent process to guide and monitor the review. The division uses the maps and guides the VDOE posts on their web site. However, there were no consistent processes and schedules to ensure horizontal (grade level) and vertical alignment of the curriculum and pacing guides.

Interviews with staff indicated there were varying levels of quality control, monitoring, and accountability. FCPS has no division-wide instructional system implement to ensure the implementation of written, taught, and tested curriculum. Focus group discussions and interviews revealed the differing processes for review of curriculum. Some campuses look at summative student performance data to adjust pacing guides and make minor curriculum revisions. Some teachers electronically log ideas for curricular change at the end of a teaching segment, while others discuss curricular changes only if their campus has regular meetings. The division reported a meeting in spring to review curriculum and pacing guides. All these efforts reflect good intentions; however, they are isolated, random, and not implemented across the division with focused intent.

There are no adopted procedures from the division office to drive a comprehensive curriculum review that occurs at regularly scheduled intervals. Nor is there a plan that identifies quality control indicators to measure what components need adjustment.

As an example of an effective process, Fayetteville Public Schools, in Arkansas, recently developed structures to manage a student-centered curriculum. The described framework ensures the effective management of the written, taught, and tested curriculum. As noted in the article, "This comprehensive plan provides the structure to ensure quality control of the designed and delivered curriculum, internal consistency, and resources necessary to address the division's mission and goals."³

³ Curriculum Design. *Fayetteville Public Schools*. Retrieved from http://www.fayar.net/administration/curr_design.html

RECOMMENDATION 3.7

Develop and implement a comprehensive division-wide process for curriculum review based on student performance data that ensures horizontal and vertical alignment and a system of monitoring and accountability.

The superintendent, curriculum and instruction team, building principals, and select teachers should refine and standardize a division-wide process for curriculum review and management. The division needs a comprehensive management process to revamp the curriculum system, designed to address the changing needs of all students. This effort culminates in a systematic, ongoing program of curriculum evaluation, revision, and development.

FISCAL IMPACT

After a few initial meetings among FCPS leadership to refine and standardize the process, central office staff and principals should implement this recommendation as part of their regular responsibilities.

FINDING 3.8

FCPS has implemented Professional Learning Communities (PLCs) at all campuses. Each campus has carved out time for teachers to participate in collaborative conversation and professional dialog. The division leaders understand the importance of time for instructional staff to meet and dialog regarding instructional issues. Even though the collaborative opportunities follow different designs and periods, they provide teachers opportunity to engage in professional dialog.

Collaboration among teaching staff encourages the resolutions to difficult and challenging issues that teachers often face in isolation. It helps prevent teacher burn out when through collaborative dialog teachers discover there are common, problematic issues among the staff. Collaboration increases the quality, scope, and effectiveness of decisions. Collaborative teamwork allows teachers time see how sharing instructional strategies and best practices interface with all content areas. Discussing lesson plans in a corporate environment stimulates creativity and innovative thinking. Time for teacher collaboration rewards the division with a sense of shared responsibility among teachers.

COMMENDATION

FCPS has many collaborative opportunities for teachers.

FINDING 3.9

FPCS has not evaluated the relative effectiveness of its varying teacher collaborative times. The division has multiple formats for providing teacher collaboration time. Some campuses label the collaborative time as PLC, others use data meetings, staff meetings, departmental or grade level meetings. Some have principal driven agendas, while others are teacher driven.

The consulting team also found a wide continuum of accountability. Building administrators have varying expectations for feedback and accountability of teacher collaboration. The continuum is as broad as little or no accountability to the building principal to the principal

expecting agendas and a summary of the discussions and dialog. Reports indicated some principals follow up and hold teachers accountable for putting the collaborative decisions into action. Autonomy, ownership, and buy-in from teachers influence the quality and effectiveness of collaborative meeting times. In some cases, the principals create the agendas and the principals attend and facilitate the collaborative time. Generally, these meetings are productive. However, focus group discussion also indicated that the agendas do not always align with the real issues that need resolve and support.

RECOMMENDATION 3.9

Identify the PLC and teacher collaborative practices and implementation procedures that have the greatest impact on student achievement and teacher buy-in within the division, then share division-wide.

The superintendent, curriculum and instructional team, and building principals should review the effective and successful practices currently in place. Some campuses have found creative ways to allow the collaborative planning to take place during the school day; others schedule teachers before and after school. The division is on target and aligned with research best practice by expecting teachers to collaborate and engage corporate thinking. The practice needs to be formalized with common procedures and processes across the division. The division's administrative leadership needs input from teachers in developing a standardized process. Division leadership needs input and ground level information from teachers regarding how to create schedules and pragmatic agendas that generate productive and useful collaborative planning time for teaching staff. Each collaborative release time should have agendas and a system of accountability built into the collaborative structure. Collaborative release time should include division-wide focus on vertical alignment of curriculum and instructional practices. Even though most sessions need site-based agendas, it is appropriate for top-down assignments that coordinate and align all educational and instructional services. These sessions must have a pragmatic focus where teachers work collectively to influence vertical decisions related to school improvement, curriculum and instruction, and professional development. Each vertical collaborative session must be about improved student achievement via teacher collaboration around curriculum, instruction, and site-based needs.

FISCAL IMPACT

This identification process should be included in already-established ongoing leadership meetings in the division.

FINDING 3.10

FCPS has no division-wide lesson-planning template. Across the division, there are varying expectations for teachers' lesson planning. The consulting team found no consistent process for how teachers plan and deliver instruction. The division has no common lesson-planning template. Some teachers submit plans electronically that are comprehensive and follow a research based lesson plan protocol. Other teachers use hard copy lesson plan books.

The consulting team found that lesson plans are not universally used to monitor curriculum and instruction. There is no division-wide planning template that equitably guides the delivery of the written, taught, and tested curriculum both horizontally and vertically.

Expectations in this area vary by school building. Documentation received by the consulting team found one building using a research based lesson-planning template and that principal following up and monitoring instructional delivery. Another principal indicated using walkabouts at specified times to determine if the appropriate skill or content was being taught but with less concern regarding the steps of instructional delivery.

The effectiveness of lesson planning outlines the teaching goals and learning objectives. Lesson plans guide the teacher in the sequential steps taken to deliver effective instruction.

RECOMMENDATION 3.10

Implement division-wide lesson planning expectations based on research protocols and recorded on a common planning document.

The superintendent, curriculum and instruction team, and building principals should adopt a common process that drives the delivery of all instruction. The division should think beyond an exhaustive document, but educate teachers in the principles and practices of effective lesson planning and design. Lesson design and planning includes teacher/student interaction, student-to-student interaction that encourages discussion, use of technology, and immediate feedback from the teacher. Good lesson planning incorporates high expectations for all students and engagement and time on task. Appropriate lesson planning also respects the research that students learn differently and there are multiple pathways for mastery learning.

FISCAL IMPACT

Developing lesson planning expectations should be included in already-established ongoing leadership meetings in the division.

D. Special Programs

The *Individuals with Disabilities Education Act (IDEA), Part B* is the federal law that supports special education and related service programming for children and youth with disabilities ages two through 21. The major purposes of *IDEA* are as follows:

- to ensure that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs and prepare them for employment and independent living;
- to ensure that the rights of children and youth with disabilities and their parents are protected; and
- to assess and ensure the effectiveness of efforts to educate children with disabilities.

The VDOE maintains the responsibility for the general supervision of compliance with federal and state requirements for providing services for students with disabilities under *IDEA* and its amendments. The focus for the VDOE, in collaboration with the local education agencies, is on the improvement of the educational performance for all students in

Virginia.⁴

Divisions must develop an Individualized Education Plan (IEP) for each child receiving special education services under *IDEA*. The IEP must include input from the parent and regular education teachers and be aligned with education plans for children in regular education classrooms. The IEP is designed to meet the unique educational needs of children with disabilities, provide educational opportunity in the general curriculum to the extent possible, and prepare children with disabilities for opportunities in postsecondary education, employment, and independent living.⁵

The reauthorization of *IDEA* in 2004, which went into effect in July 2005, includes provisions significantly changing the identification of learning-disabled students. One change in the law addresses early intervention services and creating opportunities for scientific-based interventions to determine a student's Response to Intervention (RTI). With RTI, schools identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions, and adjust the intensity and nature of those interventions depending on a student's responsiveness. Based on student's responsiveness, the division may need a referral for additional testing to determine if there is a specific learning disability.

IDEA now allows a school division to use up to 15 percent of its allocation to support services to students who have not been identified as needing special education services but who need additional academic and behavioral support to succeed in a general education environment. Professional development funds are available for scientifically based interventions, literacy instruction, and the use of adaptive or instructional technology. It also permits the use of funding for educational and behavioral assessments.

IDEA defines an effective special education program as having the following elements:

- pre-referral intervention in regular education;
- referral to special education for evaluation;
- comprehensive nondiscriminatory evaluation;
- initial placement through an IEP meeting;
- provision of educational services and supports according to a written IEP;
- annual program review;
- three-year re-evaluation; and
- dismissal from the special education program.

FINDING 3.11

The division provides collaborative opportunities for special education students. The division is currently developing a handbook for special education that describes and defines all models of inclusion. Staff anticipates it will be completed and ready

⁴ *Regulations Governing Special Education Programs for Children with Disabilities in Virginia*. (2010, January 25). Virginia Department of Education Division of Special Education and Student Services. Retrieved from

http://www.doe.virginia.gov/special_ed/regulations/state/regs_speced_disability_va.pdf

⁵ Ibid.

for use in 2014-15. This will serve as a valuable asset in the continuous improvement of services to special education students.

The consulting team also found that the division now focuses on IEP students spending more time in the regular education classroom. There is concerted effort on the part of the special education department to help teachers understand how to integrate the learning needs of special education students with the regular classroom student. The division remains mindful that inclusion in the regular classroom is the appropriate starting point but also provides a continuum of placement options and services based on the needs of the child and the division's ability to meet those needs.

COMMENDATION

There has been an increased inclusion of special education students in collaborative opportunities.

FINDING 3.12

Even though the division has recently increased mainstreaming and inclusionary practices for special education students, there is need to improve and fine-tune the process. The FCPS special education program has implemented in-class mainstreaming across the division, resulting in co-teaching, collaborative classrooms. However, there remains some inconsistency across the division regarding the selection, roles, responsibilities, best practices, expectations, and services delivered to students. The division has no system for ensuring a systematic implementation of best collaborative procedures and practices division-wide. There was no evidence presented to indicate a comprehensive review of the knowledge base that informs the co-teaching process.

Posted on the University of Kansas website is a synthesis of research regarding cooperative teaching. The information is a valuable resource for FCPS to review in fine tuning and improving the division's co-teaching efforts. The synthesis includes reviewing the following:

- *Types of Co-Teaching: Five types of co-teaching include: Lead and Support, Station Teaching, Parallel Teaching, Alternative Teaching, and Team Teaching.*
- *Power of 2: This is a useful interactive resource designed to help teachers successfully include children with special needs into the general education classroom. Professionals are able to share effective strategies, complete learning modules, and have access to useful training and teaching materials.*
- *Circle of Influence: The circle of influence table reflects what teachers should consider concerning the level of readiness their school, team, or classroom has related to co-teaching.*
- *Inclusive Schools: Teams should evaluate the inclusive philosophy of their schools in order to identify possible barriers that might exist related to co-teaching and develop a plan to increase the inclusiveness.*
- *Creating a Schedule: School personnel should create schedules for students with disabilities first, in order for teachers to have collaborative planning time and for the maximum support possible for students.*

- *Developing a Reflective Framework: A reflective framework is a tool that consists of questions co-teachers believe are important to think about related to evaluating the effectiveness of the co-teaching model.*
- *Preparing Students for Co-Teaching: Students should be prepared for a co-taught classroom in order to facilitate the creation of a positive climate and a community of learners.*
- *Co-Planning: Co-planning involves two teachers using one of the models of co-teaching to decide how they will implement instruction to meet the needs of all students.*
- *Curriculum Development: Individuals involved in co-teaching should collaborate to establish curricular goals that meet the learning, behavioral, and social goals of the students with disabilities.*
- *Grading Considerations: Individuals involved in co-teaching should be creative and open-minded about the grading process with respect to assessing students with disabilities.*⁶

An in-depth review of this information is a valuable resource on which to build and improve all aspects of the co-teaching process. The division has made initial implementation of the co-teaching arrangement. The next step is to study the current process, take steps to fine tune, and adjust the co-teaching process.

RECOMMENDATION 3.12

Review the literature and define the expectations for implementation of the co-teaching, and develop and adopt clear and concise process and procedures to define the teaching arrangement.

The superintendent, principals, curriculum and instruction team, special education director and select teachers currently involved in the co-teaching process should study current practices and implementation procedures. These practices and procedures need filtering through best practices for improvements and adjustments. This study should result in the development of a written document detailing the comprehensive implementation steps, processes, and procedures for co-teaching assignments. The document should clearly define the distinct features, components, and implementation steps. The document also needs evaluation, accountability, and process adjustment guidelines.

The consulting team recommends implementing this recommendation over the summer months. Approximately three special education and three regular classroom teachers should be a part of the process for a recommended three days.

FISCAL IMPACT

Teachers involved in implementing this recommendation outside of their regular contract may be paid a stipend. Six teachers should be involved for the three-day process (18 hours total) and paid \$150 per day, which is the typical daily rate of teacher pay in FCPS. There should also be an additional eight hours of follow up per teacher in the 2014-15 school year.

⁶ Teacher tools related to cooperative teaching. (no date). The University of Kansas. Retrieved from: http://www.specialconnections.ku.edu/?q=collaboration/cooperative_teaching/teacher_tools/

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop division processes and procedures for co-teaching.	(\$3,600)	\$0	\$0	\$0	\$0

FINDING 3.13

FCPS has implemented both RTI academic and behavioral interventions for at risk students but program implementation differs in quality and effectiveness across the schools. Even though a project team is currently working on improving processes and procedures for standardizing RTI, there are still issues of inconsistent interventions across the division.

FPCS does not have consistent, cohesive division-wide RTI processes that address all aspects of the special education program. The processes and procedures for referral, modifying student work, and coordinating services with all teachers differed throughout the division. Interview with FCPS special education staff and director indicated a need for continued improvement. Overall, the division’s program identified processes in place to serve students and adjust instruction. However, teachers differed from one campus to another with services and communication with classroom teachers. The special education director recognized the need for division-wide structured processes that drive frequent, on-going communications between classroom teachers and special education teachers. The special education program staff are aware of the needed for continuous program improvements.

Although it is being implemented, some teachers had a vague understanding the RTI components, not completely understanding they are built on the idea that intervening early to prevent failure and to maximize the effectiveness of all grade-level curriculum and instruction. Guidance published by VDOE in 2007 outlines the three components of RTI:

- universal screening;
- multiple layers or “tiers” of instruction, intervention, and support; and
- progress monitoring.⁷

Schools implement RTI for early intervention of students needing differentiated instruction. The federal government requires a multi-tiered model, though it does not specify a required set of procedures. Even though the FCPS special education program meets special education statutory requirements, there are processes and procedures within the program that need division-wide updating, alignment and improvement. School divisions can review and update their intervention and referral system by comparing the local implementation process to the RTI framework. The RTI framework involves schools:

- providing a research-based curriculum to all students in academic and behavior areas;
- identifying students who are not meeting standards;
- planning and providing research-based interventions in a timely manner;

⁷
http://www.doe.virginia.gov/instruction/virginia_tiered_system_supports/response_intervention/responsive_instruction.pdf



- monitoring student progress closely; and
- intervening at increasingly intensive levels if students do not progress toward achievement standards.

RTI uses two common intervention approaches: problem solving and standard protocol. Although these two approaches are described as being different from one another, they actually have several elements in common. These two approaches are described in **Exhibit 3.3**. In practice, many divisions combine or blend aspects of the two approaches to fit their needs. The VDOE reference materials also note that a third approach, a hybrid of the first two, is also possible.

**Exhibit 3.3
Comparison of RTI approaches**

	Problem Solving	Standard Protocol
Universal Screening	Class-wide assessment/universal screening is administered to determine the effectiveness of classroom instruction. Struggling readers are identified.	
Tier 1	Frequent progress monitoring is conducted to assess struggling students' performance levels and rates of improvement	
Tier 2	A team makes instructional decisions based on an individual student's performance. Struggling students are presented with a variety of interventions, based on their individual needs and performance data.	The person delivering the intervention makes instructional decisions that follow a standard protocol. Struggling students are presented with one standard, validated intervention that addresses a variety of skills.
Tier 3	Students whose progress is still insufficient in response to Tier 2 instruction may receive even more intensive instruction. Depending on a state's or division's policies, some students may qualify for special education services based on the progress monitoring data. In some states or divisions, students may receive either an abbreviated or comprehensive evaluation for the identification of a learning disability.	

Source: iris@vanderbelt.edu, 2011.

Similarities between the approaches are as follows:

- validated practices are used in the core classroom instruction;
- provision of early instructional intervention are extended to students who need it;
- frequent progress of monitoring is used to inform decision-making
- research-based evidence is used to design interventions in multiple tiers and phases; and
- inappropriate referrals for special education services are reduced.

The differences between the approaches are as follows:

- teams, not instructors, making instructional and placement decisions; and
- the number of interventions used with individual students.

Regardless of their academic difficulty, research validates the importance of early intervention. Implementing tiered intervention strategies that provide support to struggling readers is essential. Most of the RTI research relates to reading and math but the frameworks apply to any content area. The RTI process allows for better decisions regarding students who need continued general education and those who have need of further testing.

RECOMMENDATION 3.13

Review, update, and standardize RTI processes and procedures so implementation is uniform to meet intervention services to all students.

The special education director, early intervention coordinator, principals, special education teachers, and regular classroom teachers should develop a detailed RTI plan. The plan should include how to provide early intervention opportunities to students who struggle, particularly in math and reading, in the early grades and are not achieving mastery. Rubrics are available online to assist division staff with standardization of RTI procedures and formalizing the division plan.⁸

FISCAL IMPACT

Teachers involved in implementing this recommendation outside of their regular contract may be paid a stipend. Eight teachers should be involved for the equivalent of five days and paid \$150 per day, which is the typical daily rate of teacher pay in FCPS. The review, update, and standardization effort should be repeated annually for at least three years.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Update RTI processes and procedures.	(\$6,000)	(\$6,000)	(\$6,000)	\$0	\$0

FINDING 3.14

The division is meeting the needs of its ESL students, despite limited resources.

FCPS ESL students receive funding and services through Title III. This year the division has one teacher serving ESL students kindergarten through grade 12. The teacher is itinerant among all the schools. The ESL teacher works collaboratively with teachers, adapting the curriculum to assist all identified ESL students. The ESL teacher pushes into the regular classroom whenever possible to provide services. The students are not placed in separate programs.

The division focuses on immersion and does not typically use bilingual instructional materials. Apple iPads are provided to the ESL students with the highest need. They can use iPads for both translation and communication with the classroom teacher. Software applications are loaded on the iPads to provide additional instructional activities for ESL students.

The division's plan meets the goals and directives of the Title III requirements. The inclusive model for serving students prevents placement in separate classrooms and separate programs. Students participate in WIDA testing services. The results become part of

⁸ *RTI Essential Components Integrity Rubric*. National Center on Response to Intervention. http://www.RTI4success.org/sites/default/files/RTI_Framework_Integrity_Rubric_08-25-11.pdf

coordination efforts between regular classroom teachers and the ESL teacher. Each student has an ESL plan. Interpreters attend parent meetings to review their student's plan.

The division offers an adult education program that includes ESL classes and GED preparation. In the past, the division received a grant for Families Learning Together that provided parent volunteers in child's classroom and support from adult education. The division offers documents in the home language and has interpreters available for meetings.

On the VDOE testing web site, Fluvanna Gap Group 3, the ESL population, is classified as "too small" to render statistically significant test results for the division. However, the division provided data showing that individual test scores of students have met the Academic Measurable Objectives (AMOs).

COMMENDATION

The division works to provide effective services to its ESL students.

Moving forward, the division should regularly review program services and student demographic and performance data to ensure ESL students continue to be appropriately served.

FINDING 3.15

The FCPS gifted program is inconsistently implemented. Although the program meets state statutory requirements, services to students could be improved.

The local plan clearly defines the assessment instruments, identification procedures, committees, and personnel responsible for implementing the program. The plan defines ethnic representation and support for diversity. However, the identified students receive inconsistent accelerated and enrichment opportunities. On-site focus group dialog and interviews reported students in grades 6 - 12 are offered advanced placement and accelerated coursework. Elementary students receive accelerated and enriched curriculum and instruction in the regular classroom. The consulting team found that the gifted and talented program needs greater division focus. There are multiple classrooms where identified students do not receive appropriately enhanced curriculum.

Commonwealth regulations require school divisions to identify gifted students and provide instructional services to meet their needs. Each school board must approve a comprehensive plan for the education of gifted students. According to Virginia regulation, school divisions must provide an "appropriately differentiated curriculum and instruction." The curriculum and instructional strategies should provide accelerated and enrichment opportunities that recognize gifted students' needs:

- accelerated and advanced content and pacing of instruction;
- original research or production;
- problem finding and solving;
- higher-level thinking that leads to the generation of products; and
- a focus on issues, themes, and ideas within and across areas of study.

Gifted curriculum and instruction should be offered continuously and sequentially to support the achievement of student outcomes, and provide support necessary for these

students to work at increasing levels of complexity that differ significantly from those of their age-level peers.

RECOMMENDATION 3.15

Implement the gifted program with fidelity.

The superintendent should call for a review of practices that leads to improvement of the gifted and talented program. The division leadership needs strategic focus in guiding FCPS staff in planning and delivering accelerated, enriched learning opportunities. Division staff, principals, and general classroom teachers should work collaboratively to implement VDOE requirements such as original research projects leading to a product; problem finding and solving; higher order thinking that leads to the generation of products; and focusing on issues, themes, and ideas within and across areas of study.

The National Association for Gifted Children (NAGC)⁹ outlines a continuum of educational services, classroom resources, and options appropriate to support the differences and learning needs of gifted students. The NAGC Programming Standards provide a framework that division leaders can use in looking at student services and current practices implemented at both the high school and middle school level. These resources connect seamlessly to both Commonwealth and local requirements and initiatives for gifted education. They assist high school and middle level teachers in planning and delivering classroom activities that provide enriched, accelerated, and differentiated learning opportunities.

FISCAL IMPACT

Reviewing gifted program practices and providing strategic focus should be included in already-established ongoing leadership meetings in the division.

⁹ www.nagc.org

Human Resources

This chapter reviews the findings and recommendations related to the human resource functions of Fluvanna County Public Schools (FCPS). The five areas of review were:

- A. Organization and Management
- B. Policies and Procedures
- C. Recruitment, Hiring, and Retention
- D. Staff Development
- E. Compensation and Classifications Systems

Whether the school division is urban or rural, the work of the human resources (HR) function is a complex and sometimes exhausting task. The management of HR in any organization is a professional or business discipline that becomes involved with all aspects of staffing standards, budgeting, employment law, pay structures, benefits, certification, accreditation, performance evaluation, professional development, and personnel files or records.

HR management, operation, and impact on school division budgets are important division operations to study or examine in any organizational review. While the concept of budgets is common across professional sectors and fields, the budget process in public schools has noticeable differences that impact how divisions allocate and prioritize their funds. For example, the American Association of School Administrators (AASA) recently published a paper online which points out that while most public and private organizations and businesses have 35 to 40 percent of their budgets tied to personnel and benefits, the comparable number in public schools is, on average, more than double, between 80 and 85 percent.¹⁰ As the availability of funding or resources for school divisions becomes both less and more restrictive, HR management becomes the focus of change because the fiscal impact can be significant. The efficiency and effectiveness of the HR management and operation is dependent on the organizational structure and strategic leadership. Since the HR purpose and mission is a customer service effort, the staff must concern itself with internal and external job applicants, current employees, and to some extent the employees who have left the division.

Employee-related costs represent the majority of FCPS expenditures, and teachers represent the largest employee group. FCPS uses the Virginia Department of Education (VDOE) Standards of Quality (SOQ) staffing standards or formulas to allocate teaching position to schools. **Exhibit 4.1** compares the division's 2011-12 teacher staffing levels and ratios of students to school-based teachers in comparison to the peer school divisions. The number of teaching positions reflects "teacher-scale" positions (i.e., paid of the salary schedule for teachers) which include other types of classroom teachers (music, art, physical education, and vocational education) as well as non-classroom positions with teacher certifications (guidance counselors, media center specialists, librarians).

As shown, when compared to the peer divisions, FCPS has the highest number of students per classroom teacher in grades K-7 but the lowest number in grades 8-12. When compared with SOQ, the number for K-7 is reasonably close, but the low 8-12 number may be skewed

¹⁰ *AASA White Paper: School Budgets 101*, American Association of School Administrators. www.aasa.org.

because of reporting errors that occurred before the consolidation of all schools which placed grade 8 students at the high school. There are several factors that drive the overall ratio of students to teachers, including the average class size for classroom teachers.

Exhibit 4.1
Comparison of 2011-12 teacher staffing levels

School Division	Elementary Teaching Positions	Secondary Teaching Positions	Students per Classroom Teacher	
			Grades K-7	Grades 8-12
Greene County	157.4	90.9	12.1	10.9
King George County	164.3	125.5	15.1	12.4
Louisa County	232.8	139.3	12.1	11.9
Madison County	100.8	55.6	10.7	12.0
Orange County	232.3	122.2	13.4	14.8
Warren County	227.3	167.3	14.2	12.3
Peer Division Average	185.8	116.8	12.9	12.4
Fluvanna County	148.0	131.4	15.3	10.5

Source: 2011-12 VDOE Superintendent's Annual Report.

Exhibit 4.2 compares the number of school-based administrators, teachers, teacher aides, and others (media specialists and counselors) per 1,000 students for FCPS and the peer divisions. The number of principals and assistant principals (3.4) per 1,000 and the number of teachers (75.1) are both below the peer division averages. The number of instructional assistants is second from the lowest. These data suggest that on average, staffing for school-based positions is below the peer median except for librarians and counselors (“others”), which is the same as the peer division average.

Exhibit 4.2
School-based staff per 1,000 students

School Division	End-of-Year ADM Grades K-7	End-of-Year ADM Grades 8-12	Staff per 1,000 Students			
			Principals and Assistant Principals	Teachers	Instructional Assistants	Others
Greene County	1,905.2	993.7	4.1	83.4	25.7	6.5
King George County	2,476.8	1,549.4	2.7	70.3	15.8	4.1
Louisa County	2,809.9	1,667.3	3.9	81.0	19.7	5.9
Madison County	1,078.6	667.6	3.2	86.2	20.9	7.9
Orange County	3,111.6	1,806.8	3.3	69.1	9.5	8.7
Warren County	3,219.1	2,057.5	3.8	73.2	17.9	5.1
Peer Division Average	2,433.5	1,457.1	3.5	77.2	18.3	6.4
Fluvanna County	2,266.8	1,378.2	3.4	75.1	14.4	6.4

Source: 2011-12 VDOE Superintendent's Annual Report.

The total position count of all employees in FCPS dropped by 33 at the beginning of 2013-14. **Exhibit 4.3** shows a comparison between the net losses and gains in positions by schools and departments.

Exhibit 4.3
FCPS position total comparison

School/Department	2012-13 Number of Employees	2013-14 Number of Employees	Difference
Central Elementary	75	95	20
Columbia Elementary	15	0	(15)
Cunningham Elementary	25	0	(25)
Carysbrook Elementary	59	55	(4)
Fluvanna Middle	84	82	(2)
Fluvanna County High	136	136	0
Alternative Education	5	3	(2)
Bus Shop	5	5	0
Cafeteria	24	32	(2)
Maintenance	6	6	0
Technology	11	9	2
Transportation	67	67	0
SBO Administration	17	16	(1)
School Board Members	5	5	0
Total	543	510	(33)

Source: Director of Finance, FCPS, January, 2014.

In total, the consulting team gave three commendations in this chapter:

- Provide a quality education to all of our students.
- The three employees who currently perform HR duties and responsibilities are commended for their exemplary work in the areas of personnel as measured by the praise and expressions of appreciation that were shared with the consulting team.
- FCPS is commended for maintaining an exceptionally low turnover rate in all employee groups.

The consulting team also made 12 recommendations in this chapter:

- Create one full-time professional HR position.
- Discontinue the extended service opportunities for retired FCPS employees and the annual stipend paid to the retired superintendent.
- Place all personnel file folders in fire-resistant and waterproof cabinets which are located in a room away from public access that can be kept locked during both work and evening hours.
- Update systematically all job descriptions to ensure that they accurately reflect job functions and comply with applicable FLSA laws.
- Provide an online employee handbook.
- Create a plan to increase the number of teachers in FCPS who become National Board Certified Teachers or otherwise demonstrate excellence in teaching.
- Develop a comprehensive division-wide professional development master plan.

- Develop and publish salary schedules for all pay groups and rework the existing ones to ensure equity in compensation for employees in the same work group and to inform them of their current pay status in relation to other work groups.
- Rework the salary schedule for teachers to provide equal, incremental compensation as they advance on the salary schedule and reduce the maximum step to 25 years.
- Raise full benefits eligibility to a minimum of six hours and pay part-time benefits to part-time employees.
- Ensure that all supervisors of employees eligible for overtime pay and compensatory time off are complying with federal FLSA rules.

The estimated fiscal impacts of these recommendations are shown in the following table. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division; no costs or savings are shown for those recommendations.

Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
4.2	Create a full-time HR position.	\$0	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)	(\$200,000)
4.3	Discontinue extended service positions.	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
4.4	Purchase fire- and water-proof cabinets.	(\$12,000)	\$0	\$0	\$0	\$0	\$0	(\$12,000)
4.11	Rework the teacher salary scale.	\$0	\$226,235	\$226,235	\$226,235	\$226,235	\$226,235	\$1,131,175
4.12	Raise full benefits eligibility.	\$0	\$85,940	\$85,940	\$85,940	\$85,940	\$85,940	\$2,565,720

A. Organization and Management

Even though HR functions are intrinsic to central office functions and responsibilities, there is not a HR department in FCPS. As a result, sometimes there is confusion about which HR operation is handled by the assigned clerks and administrators currently doing add-on HR work. The line items in the FCPS budget that possibly could cover some of HR functions are indistinguishable, inexact, or not properly coded as HR items. In the absence of these critical factors, regularly-used and research-based metrics and comparisons using best practices that are designed to analyze the efficiency and effectiveness of the HR operation in a school division cannot be used in this review.

FINDING 4.1

HR is only one of the major functions that is supervised by the FCPS assistant superintendent. His administrative assistant carries the title of licensure specialist, and she spends 50 percent of her daily work time completing clerical work related to HR. Together, they comprise the primary HR team for FCPS. However, a considerable amount of HR work is also performed by the payroll specialist in the finance office.

Despite its somewhat disparate managing, the three employees are responsible for supporting the traditional human resources function, and they must cover all aspects of personnel management from processing job applications to overseeing the retirement process. Primary duties and responsibilities include:

- conducting recruitment, receiving applications, and initial screening of applicants;
- maintaining the online job applicant tracking as well as a minimum number of paper applications;
- monitoring licensure for certified positions and assisting employees in filing for re-certification;
- ensuring compliance with federal, state, and local guidelines;
- updating school board policies when necessary;
- creating electronic records of employment and keeping paper personnel files for new and returning employment;
- supporting payroll and benefits functions;
- operating the division's leaves of absence procedures and reporting system;
- ensuring that performance evaluations are conducted; and
- monitoring the outsourced employee assistance program (EAP) and handling employee relations.

Principals and other employees interviewed by the consulting team lauded all three employees for their responsiveness, efficiency, and customer service.

COMMENDATION

The three employees who currently perform HR duties and responsibilities are commended for their exemplary work in the areas of personnel as measured by the praise and expressions of appreciation that were shared with the consulting team.

FINDING 4.2

An insufficient amount of staff time is allocated for critical functions commonly associated with HR. Currently, they are tasked out to leadership and clerical positions who spend 50 percent or less of their work time performing HR duties. Mainly, the assistant superintendent, his administrative assistant, and the chief payroll clerk in finance perform these tasks. As a result, employees with personnel questions become confused whenever they receive different responses from each of the three who are responsible for HR functions for less than half of their work time.

When compared to that of peer school divisions (**Exhibit 4.4**), the ratio of all staff in FCPS who operate HR services to the number of employees that they serve is considerably higher than any of their peers.

Exhibit 4.4
Comparison of HR Department staffing with peer divisions

Division	Total Employees (FTE)	Employees Assigned to HR	Ratio HR : Employees
Greene County	245	2	123
King George County	247	2	124
Louisa County	352	1.5	235
Madison County	206	1*	206
Orange County	302	2.5	121
Warren County	254	1.5	169
Peer Division Average	268	2	141
Fluvanna County	226	1*	226

**No FTE assigned for HR.*

Functions covered by 0.5 positions assigned to other division positions or functions.

Source: 2011-12 VDOE Superintendent's Annual Report; HR Employee counts as per HR staff listing on division website. The number does not include benefits, payroll, or mailroom clerks.

In 2011 the Institute for Corporate Productivity released a set of findings from recent research containing both statistical and analytical methods for determining the conditions and effectiveness of an organization's HR operations. To an extent, these findings used the SHRM standards and recommendations. By analyzing data from over 850 organizations, including some public school systems with both large and small student enrollments, the Institute for Corporate Productivity devised a model determining the normative ratios of HR FTEs to number of workers based on organization size for high versus low performing companies and public organizations.¹¹

Using this model for an organization of similar size and functioning at a high level of performance, the FCPS ratio of HR staff to the number of employees should be 0.70, or one HR FTE for every 158.4 employees. With 226 employees in FCPS, this would result in an HR staff of 1.7 FTE.

On the other hand, the SHRM benchmark for HR-to-employee ratio is 0.79 for an organization of FCPS' size. The SHRM benchmark would assign one HR person for each 127 FCPS employees, or a total of 1.8 HR FTEs. By either measure, the FCPS HR office is understaffed.¹²

RECOMMENDATION 4.2

Create one full-time professional HR position.

Although the need, according to best practices formula, for increasing the staff assigned to HR is greater than one employee, adding one will markedly enhance the efficiency and effectiveness of the office and greatly reduce the stress of all those assigned. Together with a new staff member and continuing to find funds to hire a part-time, hourly helper to work in HR during the most work intensive and deadline demanding times (contracting time,

¹¹ Human Capital Analytics Knowledge Center. Retrieved from <http://www.i4cp.com/hcm-base/human-capital-analytics>

¹² Human Capital Benchmarks Report. (2012). *Society of Human Resource Management*. Retrieved from <http://www.shrm.org>

summer hiring for the subsequent school year, and onboarding), the output will approach the double mark.

The position would assume the responsibilities of new employee orientations, explanation of benefits, and providing information to employees about the benefits of the Virginia retirement system, all of which are currently being provided by the payroll specialist who reports to the director of finance.

FISCAL IMPACT

The consulting team estimates that the salary and benefits of the new position will be approximately \$40,000 per year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Create HR position at specialist rank.	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)

FINDING 4.3

Retired FCPS personnel are offered extended service opportunities on an annual basis through a contractual arrangement known as “Letter of Assignment.” As a condition for their providing 30 days of service within 12 months, either contiguously or randomly, in an assignment related to their past employment, the division provides a contribution each month to the employee-only health insurance costs or a monetary supplement. The director of finance told the consulting team that the original intent of this program was an “early retirement offer.”

The retirees may annually elect to participate for a period of seven years after retirement. Although all retirees do not elect to participate, there are currently 24 who do. These 24 each agree to “provide 30 days of service for benefits as deemed appropriate and necessary by the superintendent or designee.” Former teachers are generally expected to substitute teach on an “as needed” basis. However, the consulting team found that some former teachers do clerical or office work instead of substitute teaching. A former custodian and a former employee in technology spend their 30 days performing work related to their last assignment before retirement.

Each of these extended service workers receives \$440 each month either as an insurance allowance or a monetary award (i.e., direct deposit check) or \$5,277 annually. The daily compensation for 30 days is \$175.89. Continuing this early retirement incentive each year costs the division \$126,642.

Also, a FCPS retired superintendent continues to be paid a stipend of \$12,000 one-time annually in a similar “early retirement” arrangement, but he does not sign an annual “letter of assignment.” The current FCPS superintendent told the consulting team that she receives no advice or counsel from this predecessor.

Together, these awards to retirees and the former superintendent equal \$138,642.

RECOMMENDATION 4.3

Discontinue the extended service opportunities for retired FCPS employees.



The same work completed by these extended service employees if needed can be provided by other means already available. For example, the division currently pays its regular substitute teachers daily rates of \$65.50 for non-degreed, \$75.50 for degreed, and \$200 for certified teachers assigned as long-term subs. A per diem arrangement for services, if needed for non-teachers who previously worked as extended service employees, can be arranged at a lower daily rate.

Regarding the annual stipend to the retired superintendent, it appears that this contract is binding for a period of seven years. Moving forward, the division should avoid making similar contracts.

FISCAL IMPACT

The consulting team acknowledges that some of the savings generated from this recommendation might need to be spent in securing substitute workers and therefore estimates a net savings of \$100,000 per year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Discontinue extended service positions.	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000

FINDING 4.4

Storage of employee’s personnel records within the HR office does not consistently meet industry standards for storage and security. Official personnel records of active employees are stored in nine letter-sized file cabinets within the office where the HR specialist works at her desk and where customers or clients enter the HR office. These file cabinets have no locking mechanisms, and they are neither fire-rated nor waterproof-protected. The only time they are secured from unauthorized access is when the larger office is locked for the evening. Whenever the HR specialist has to leave her office for breaks, for lunch, or for errands, the office is left vacant and unlocked, compromising the security of the personnel records.

Fluvanna board policy GBL – Personnel Records addresses the confidentiality of personnel records and their contents, but the policy is silent in regard to physically ensuring the security, safeguarding, and storage of these files to increase their confidentiality.

Because many personnel records contain personal information about individuals, they are highly sensitive and confidential. Access to the records, whether paper or electronic, must be strictly controlled and monitored. Strong and effective security measures are needed to protect the records against loss, damage, unauthorized access or alteration while in storage and during their active use in the office. The location and use of paper records need to be tracked, along with the need to develop mechanisms to identify who has accessed a record, when they accessed that information, and whether any action was taken on, or changes made to, the record. Those who have custody and day-to-day management of personnel records must be aware that they have been entrusted with the responsibility for revealing information gleaned from the records.

There are neither federal regulations or specific Virginia laws, nor Fluvanna board policy regarding the manner and security of how HR personnel files or folders, *per se*, are stored. However, there are some best practices in the industry.

Personnel files should be kept in file cabinets that are individually or gang-locked, preferably at all times. These cabinets should be placed in an office or a room that is locked when not in use. Employees should be careful not to leave files unsecured. For example, a personnel file should be locked inside a desk or cabinet, rather than left on the desk, whenever a supervisor or HR secretary goes to lunch.

RECOMMENDATION 4.4

Place all personnel file folders in fire-resistant and waterproof cabinets which are located in a room away from public access that can be kept locked during both work and evening hours.

In the current location of the FCPS administrative offices, there is limited space available that can be used for a lockable office or room to be designated as the personnel file storage room. The current lack of space is a serious breach of security and confidentiality.

FISCAL IMPACT

The nine file cabinets currently being used will need to be replaced. Available for purchase for local vendors or from the state bid list, new patented designs are 35 percent lighter than the older versions. With fire protection that starts at the core, the newer water-resistant fire files provide adequate protection. The file cabinets purchased should be Underwriters Laboratories (UL) Classified Fire Endurance (1 hour at 1,700 degrees F.) as well as UL Classified explosion hazard resistant in case of sudden exposure to damaging winds or other natural disasters. For water protection, the cabinets should be Edison Testing Laboratory (ET) Verified water protection against sprinkler and water spray exposure. A privacy key lock for each cabinet is also a necessity.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Place all personnel file folders in fire- and water-proof cabinets which can be locked when not in use.	(\$12,000)	\$0	\$0	\$0	\$0

B. Policies and Procedures

Guided by school board policies and administrative rules and regulations, the HR function of FCPS, even without a specific HR position, operates smoothly despite the absence of specific, written work flow processes. Required jobs and tasks are completed more from staff memory and years of experience than from written procedures.

Even though the work of those assigned to HR operations meets deadlines and provides services as expected, for the most part they are dependent on paper-driven activities and records. The inefficiencies of manual processes, often causing duplicative data entry and parallel processing of the same paperwork, can be corrected by electronic processes which are already available or planned in the near future. There are minimal formalized workflow processes to information between the staff and to payroll and benefits in different offices. Even though automation is in progress with applications for vacancies and new jobs through SchoolStream, processing of employment changes, salary transactions, terminations, benefits enrollment, and time and attendance reporting are completely manual, often with



multiple or duplicative forms that travel among individual staff members. Attendance and time reporting are especially burdensome and open to unnecessary errors because of the various forms and different staff that are involved in the process and paper flow.

FINDING 4.5

Job descriptions at FCPS are not up-to-date. Those presented to the review team contained some that were not active positions, some whose job title had no match in the compensation schedules, and many were missing accurate Fair Labor Standards Act (FLSA) classifications of “exempt” or “nonexempt.” Some attempts have been made to review and revamp them. Most of the job descriptions are printed from posted documents on the applicant tracking system whenever a vacant position is posted. Ongoing reductions in staff and restructuring the organization have eliminated some positions or merged others into one position, yet accurate job descriptions were never written, amended, or deleted.

Job descriptions serve an important function in any organization. Not only are they used during the hiring process to identify the appropriate knowledge, skills, and abilities of candidates for employment, but also an accurate job description can serve as a valuable resource for performance management by establishing an agreement between the employer and employee about what an acceptable job performance looks like. Moreover, they can be extremely helpful in identifying the necessary training and development to bring an employee to an acceptable performance level.

When compared with best practices and the SHRM recommendations for components to be included in job descriptions, those in Fluvanna do not meet all the standards in format, appearance, and presentation. Some jobs are dynamic – changing rapidly and extensively because of technological or organizational considerations. The descriptions for these types of jobs should be reviewed at least annually. Other jobs change little over long periods of time; their job descriptions need not be reviewed as often.

Exhibit 4.5 provides a useful checklist for supervisors to use as they perform the reviews and updating of the descriptions of all jobs assigned to their departments. Job descriptions set the expectations for all employees in their positions and alleviate any ambiguities that may exist within each work assignment. Inaccurate, outdated, or incomplete job descriptions can lead to confusion about responsibilities and potential legal trouble. This can affect the organization’s structure by creating disorganization which could potentially lead to high turnover rates and the loss of superior employees. Potential legal trouble caused by inaccurate or outdated job descriptions can also lead to possible financial loss (from lawsuits) within the organization.

Exhibit 4.5
10-point checklist for reviewing and updating job descriptions

1. Does a job description exist for every position that you supervise?
2. Do you regularly review job descriptions and update them to reflect changes in employee responsibility?
3. Do you provide employees with written copies of their job descriptions?

For each position, ask the following questions about the job description:

4. Is the job title accurate?
5. Does the job title still reflect the position's responsibilities?
6. Are job titles consistent throughout the organization?
7. Does the job description include appropriate qualifications for the position?
8. Does the job description accurately reflect the requirements of the job?
9. Are job functions and performance standards presented in clear, easily understood terms?
10. Are job descriptions free of reference to age, race, gender, religion, disability, or any other "protected" characteristic?

Source: "HR Specialist: HR Answers You Can Trust."

RECOMMENDATION 4.5

Update systematically all job descriptions to ensure that they accurately reflect job functions and comply with applicable FLSA laws.

Because of the current age of the job descriptions at the FCPS HR office, the department should initiate a project to update all job descriptions. The first step is to perform a structured job analysis to determine what competencies and skills the incumbent in each position must possess as well as the current job responsibilities and duties of the position. This analysis can be accomplished using observation of or interviews with selected incumbents in addition to job specific questionnaires that can be provided to all incumbents and their supervisors to efficiently gather information about specific job types.

The responsibility for reviewing and updating job descriptions on a regular basis (every three years is recommended for the totality of jobs described in FCPS) has to be assigned to the senior leader of HR functions. As part of the job description review, FCPS should verify FLSA exempt and nonexempt statuses and Equal Employment Opportunity classifications for each position and reclassify them, if necessary.

FISCAL IMPACT

Given the number of FCPS job descriptions, the consulting team estimates that existing staff will need to devote at least 40 hours annually to implementing this recommendation.

FINDING 4.6

Even though principals produce a faculty-staff manual at the campus level, generally other supervisors of other departments in FCPS do not. The campus handbooks rarely provide its readers with rules, regulations, and procedures in regard to HR functions. An online employee handbook or manual for all employees would rectify this deficiency and provide a readily-accessible communications tool.

Many school divisions underestimate the value of an employee handbook. A well-drafted employee handbook provides written documentation of a division's policies and procedures. In addition, a well-drafted handbook includes critical policies based on state and federal labor and employment laws that require mandatory compliance. Some state and federal laws, in fact, require a policy based upon the statute to be included in any employer handbook. For example, all employers must comply with the Social Security Number Privacy Act, including having a statutorily mandated policy covering the act contained in their employee handbook if they have one. A well-drafted handbook is vital for reinforcing policies and allows employees to reference it often as situations arise in the organization.

Exhibit 4.6 shows an outline for an effective employee handbook offered by the *American Association of School Personnel Administrators (AASPA)*.

Exhibit 4.6 Outline for an effective employee handbook

1. A statement of welcome and an explanation of the handbook's purposes.
2. A brief history of the school division.
3. A description of products and services.
4. Organization charts.
5. A map showing the location of the schools.
6. An explanation of authority or reporting procedures.
7. General information on customers, facilities and services, and division activities in the community.
8. A division mission statement.
9. Division policy statements on equal employment opportunity, affirmative action, drug-free workplace, ethics, employee bullying, sexual harassment, and union representation.
10. Information on internal and external recruitment and selection, including job posting policies, promotion and transfer policies, separation and rehire policies, and opportunities for training, career counseling, and professional development.
11. Basic compensation and benefits information, including employment classifications, work hours, pay procedures and schedules, overtime pay, holidays, vacations, bereavement, jury and witness duty, sick leave, and other leaves of absence.
12. Summary descriptions of fringe benefits such as health and life insurance, tuition reimbursement, pensions, employee assistance programs, and work/life.
13. Programs – for example, child or adult day-care services or adoption assistance.
14. Emergency information, including numbers to call in case of a fire, an accident on the job, or unforeseen disasters.
15. General rules of workplace conduct – for example, smoking, dress and grooming, or absenteeism and tardiness – and methods of addressing complaints and resolving disciplinary problems.
16. Brief explanations of procedures for purchasing equipment, arranging travel, or receiving expense reimbursements.
17. An acknowledgement of receipt form.
18. An alphabetized topic index.

Source: American Association of School Personnel Administrators, 2012.

RECOMMENDATION 4.6

Provide an online employee handbook.

The value that a well-drafted employee handbook contributes is significant. First, an employee handbook helps hold employees accountable for their conduct. The handbook should set forth the board's expectations and the consequences for employees that fail to

comply. Second, a well-drafted handbook consistently applied and enforced sets the stage for defending an employer from potential liability. An example is where an employer's EEO policy requires an employee to file any complaint of discrimination or harassment internally. Filing an internal complaint gives the employer the opportunity to investigate, address, and eliminate any discrimination and/or harassment that may be confirmed. If an employee fails to follow the employer's policy, the employer may use the employee's failure to do so as an affirmative defense in a subsequent discrimination and/or harassment lawsuit.

The online employee handbook should contain all of the essential information, forms, and applications about any HR procedures, processes, or functions, thereby facilitating easy access by employees and reducing the time HR staff have to spend in copying, printing, collating, stapling, and distributing hard copies of individual documents needed and requested by employees.

FISCAL IMPACT

This recommendation can be implemented over time. Staff can complete chapters in the handbook as their schedules allow, in order to keep costs to a minimum.

C. Recruitment, Hiring, and Retention

One of the most critical functions performed by a human resources department is the recruitment, employment, support, and retention of a stable, high quality workforce that can support the division in meeting its varied and unique challenges in educating students. Whether or not the division is successful in meeting its goals and objectives is dependent upon the workforce being able to implement initiatives and accomplish results. The recruitment and retention of a high-quality workforce requires a commitment by all departments and supervisors in a partnership with the HR department. Another benefit of an effective recruitment process is that, over time, it will improve the quality of candidates hired, and lead to longer tenure, reducing turnover.

FCPS has no formal program currently in place to recruit or retain employees. For the past several years, the division has not needed to make much effort in recruiting. Because of a low turnover rate and reductions in staff due to decreasing student enrollment and consolidation of schools, enough candidates have applied to fill most of the vacancies. All vacancies are posted on the division's website. HR's use of SchoolStream, an online applicant tracking system, has created sufficient pools of candidates. In addition, Fluvanna utilizes its most effective student teacher placements (internships) to identify teacher candidates for hire. Most recently-graduated, new teachers in Fluvanna completed their student teaching or internship in Fluvanna County.

According to information provided the consulting team, usually recruiting trips outside the division are made in conjunction with job fairs at University of Virginia, Longwood College, James Madison University, Radford College, and Virginia Tech. For recruiting trips for the current budget year, \$1,000 was put aside.

The only informal plan or program that FCPS has in place to retain employees is the teacher salary scale which is among the highest in beginning salary within the geographical area. There is no retention plan for other employee groups; nor is there a need for one since turnover is rare.

Division administrators believe that the little difficulty it experiences each year in recruiting and retaining employees is the result of the attraction of the geographic region, climate, low taxes, recreational opportunities, continuing education opportunities, and affordable housing. Again, the starting pay for teachers is competitive for the region, especially for the first nine years of employment in Fluvanna County.

In regard to employee recognition, as a practice, anytime one of the FCPS employees achieves a milestone or performs in a noteworthy fashion, HR seeks local, state, and national media exposure. Major accomplishments of employees are recognized at school board meetings and the honorees receive certificates documenting their achievement or accomplishment. The office of the assistant superintendent for operations sponsors the division's teacher of the year program. Each school selects its teacher of the year and from that group comes the teacher designated as Fluvanna County Teacher of the Year. The local Farm Bureau organization provides dinner to recognize outstanding employees.

FINDING 4.7

The division's career ladder for teachers does not currently provide financial incentives for teaching excellence. One potential resource could include supporting teachers who seek recognition as National Board Certified Teachers (NBCT).

The mission of the National Board for Professional Teaching Standards is to advance the quality of teaching and learning by creating a voluntary system to certify teachers who meet those standards and to integrate board-certified teachers into educational reform efforts. The website for the National Board for Professional Teaching Standards, the organization for NBCT, lists 2,627 Virginia teachers who hold NBCT credentials. Of that number, only three are teachers in Fluvanna County.

National Board certification has a positive impact on student achievement and is a widely accepted form of performance-based pay. For example, the first year a Virginia teacher becomes a NBCT, he or she receives a first year stipend of \$5,000. Continuing awards of \$2,500 are issued annually for the life of the active certificate. Recertification is required every ten years. Fluvanna does not offer any supplements to its NBCTs. The national program is administered in Virginia by the Department of Education.

NBCTs are highly accomplished educators who meet rigorous standards through intensive study, expert, ongoing evaluations, self-assessment, and peer review. The national program offers 35 certificates that cover a variety of subject areas and student development levels. Recertification is required every 10 years.

In a congressionally-mandated study, the NBCT program was recognized in June 2008 by the National Research Council as having a positive impact on student achievement, teacher retention, and professional development. Students taught by teachers with NBCT credentials make larger gains on achievement tests than those taught by teachers who do not have them, the report says. "The evidence is clear that National Board Certification distinguishes more effective teachers ... with respect to student achievement," the Research Council report concludes.¹³

¹³ Hakel, M. D., Koenig, A. K., & Elliott, S. W. (2008). *Assessing Accomplished Teaching*. National Academy of Sciences. Retrieved from http://www.nap.edu/catalog.php?record_id=12224

RECOMMENDATION 4.7

Create a plan to increase the number of teachers in FCPS who become National Board Certified Teachers or otherwise demonstrate excellence in teaching.

The superintendent should work with principals to identify ways to promote pursuit of National Board Certification among the division's teachers. Teachers may find the process easier if they embark on it together in groups.

FISCAL IMPACT

Encouraging National Board certification could be done at no cost to the division. Completing the requirements for National Board certification comes with a moderate cost to the teacher candidate. However, scholarships for fee support are available. Some school divisions in Virginia pay for the costs of their teachers pursuing certification. The Virginia Education Association (VEA) and other professional organizations often assist their members with scholarships. Through the generosity of philanthropic donors, several scholarships are available through the National Board for Professional Teaching Standards (NBPTS) to help offset the cost of the National Board programs.¹⁴

FINDING 4.8

Only 15 teachers new to the division were hired in the 2013-14 school year to fill vacancies caused by retirements, spousal relocation, and other resignations.

The employee turnover rate annually in FCPS is less than one percent. The average number of years of experience in FCPS in 2012-13 for all employees was 14 years. The average number of years of experience for teachers was 16 years.

Non-teaching positions that became vacant have been eliminated so there was no turnover among support staff positions in the current budget year. The recent closing of two schools and the resultant consolidation caused the board's reduction in force policy to be implemented. Reductions continued into the current school year when 18 more positions were eliminated. However, even with having the necessity to reduce the size of the division's support staff, normal attrition in the last three years has resulted in low turnover.

COMMENDATION

FCPS is commended for maintaining an exceptionally low turnover rate in all employee groups.

D. Staff Development

Over the last 15 years, the concept of staff or professional development for teachers and administrators has undergone a significant shift in paradigm. The old model of expert-driven, off-site workshops, attended by teachers and administrators according to their interests or mandated for all of the division, has been replaced by a model of collaborative, constructivist learning focused on supporting improved teaching and learning, and delivered at the school site as part of teachers' regular routines. This job-embedded, research-based learning community approach requires teachers to reflect on student achievement levels as a

¹⁴ www.nbpts.org

function of their practice and collaboratively address ways to enhance instruction to promote higher levels of student achievement. The broad descriptor for this process is the “Inquiry Model of Professional Development,” and it is through the inquiry process that school communities can create short-term continuous improvement cycles that, when connected and focused on instructional practice and student learning, lead to whole school improvement.

In keeping with this revitalized approach to staff development, each of the Continuous School Improvement Plans (CSIP) of all of the schools in FCPS shows evidence that school leaders in Fluvanna recognize that teacher capacity is built within learning communities committed to improving teacher skills and knowledge toward the end of increased student achievement.

Those central office employees currently handling the HR functions of FCPS are not assigned the responsibility for professional development nor is there another department, including instruction, which assumes the responsibility. Other than the hours documented by individual teachers to be used for licensure renewal, no other records are kept for tracking any required and optional staff development hours. There is no formal training plan provided for other non-instructional employee groups that focuses on division-wide goals. Currently, performance improvement areas that are assigned to non-instructional employees during their evaluations are not documented or linked to staff development that should be offered by the division or some other entity.

FINDING 4.9

FCPS has no established plan for professional development/training.

Throughout the review and on-site interviews and focus groups, professional development/training was cited as being inconsistent among schools and virtually non-existent in support areas. Because of severe funding issues, \$12,500 was budgeted in 2013-14 for staff training or professional development division-wide. Outside of references to training planned in school improvement plans, there are no records that training has occurred in central administration. There is little training provided for other employee groups, usually for employees assigned to technology. For professional staff, there is no over-arching plan that is based on division-wide data, student achievement, requirements of the division’s strategic plan, or the identified needs of teachers for professional growth.

Currently, many tasks related to improving curriculum and instructional delivery and related professional development are overseen through informal conversations and monthly meetings among logically convened personnel, and are achieved, in essence, due to the personalities and commitment of the individuals who hold positions of responsibility. Interviews with division staff did not reveal that data, student or teacher needs, and the strategic plan were *systematically* the basis of decisions about professional development provided to division staff. Likewise, staff input showed that any training for support personnel was limited; for example, brief orientations on how to input data into a new software program, how to use a new piece of equipment, and mandatory training in harassment and security and safety issues.

When questioned directly why staff development in FCPS would be considered inconsistent among schools, teachers, principals, and other instructional staff, the reasons were identified as:

- The secondary schools' teaching schedules provide extensive planning time for teachers instead of direct instructional time for students in contrast to elementary teachers' limited number of minutes of planning time a day; secondary teachers have more time for planning instruction, meeting collaboratively, and functioning with a learning community;
- There is currently no quality control oversight to ensure that the training at the school site will be meaningful for teachers attending; some schools have better trainers than others;
- Even though there are research-based standards on what constitutes effective teacher training, no one seems to know them;
- When teachers from one school attend various trainings, administrators and resource staff are not in the position of being able to follow-up the training to ensure that the learning results in changed practice;
- The design of the training that individual schools provide as per their CSIP is either "hit or miss" or lacking in any semblance of well-thought-out design entirely; and
- Some support supervisors insist that training is provided to the employees they supervise; others consider training to be a waste of work time.

RECOMMENDATION 4.9

Develop a comprehensive division-wide professional development master plan.

A division-wide plan would not weaken or lessen the responsibility of school administrators and other supervisor to plan, design or develop, and to deliver training as required in their CSIPs. Instead, having a focus for training that is powered with calendars and time schedules, a roster of trained presenters or trainers of other trainers, research on best practices for teaching and learning, and resources for scheduling expert trainers for sessions that can be shared among schools would enhance all local school efforts to provide better teacher preparation. Another component of the plan would address the universal needs of the support groups. An organizational structure would be in place to document the training that an individual employee receives.

Having a division-wide plan would strengthen the division's ability to apply for and win staff training grants from federal and state agencies as well as philanthropic organizations which generally are not available to individual schools within a division. For example, 229 Jefferson City, Missouri, K-12 teachers in 2012 participated in a federal and state funded grant program, *Improving Teacher Quality*, and gained significant improvement in teaching math and science as a result of the grant. More than 14,000 of the students assigned to these teachers showed significant gain in their achievement scores when compared with a control group who were assigned to teachers without the quality training.¹⁵

FISCAL IMPACT

The assistant superintendent will likely need to spend a week or more developing the plan, with input from central office and school administrators.

¹⁵[http://dhe.mo.gov/news/show.php?u=Grants for Teacher Training Show Significant Impact&yr=2012](http://dhe.mo.gov/news/show.php?u=Grants%20for%20Teacher%20Training%20Show%20Significant%20Impact&yr=2012)

E. Compensation and Classification Systems

Despite recent funding shortages experienced by FCPS, employees earlier enjoyed a history of advancement and growth in salary and compensation. **Exhibit 4.7** reflects FCPS compensation actions from 2001-02 through 2013-14, including two years when salary advancements were not made and when it became necessary to reduce some salaries through outright salary reductions and mandatory furloughs.

Exhibit 4.7
History of FCPS compensation actions

School Year	Salary Actions
2001-02	<ul style="list-style-type: none"> 6.4% increase plus step
2002-03	<ul style="list-style-type: none"> 3.7% increase plus step
2003-04	<ul style="list-style-type: none"> 4.1% increase plus step
2004-05	<ul style="list-style-type: none"> 4.0% increase plus step
2005-06	<ul style="list-style-type: none"> 6.0% increase plus step
2006-07	<ul style="list-style-type: none"> 5.5% increase plus step
2007-08	<ul style="list-style-type: none"> 3.0% increase plus step
2008-09	<ul style="list-style-type: none"> 4.0% increase plus step
2009-10	<ul style="list-style-type: none"> Salaries frozen – no increase/no step increase
2010-11	<ul style="list-style-type: none"> Salaries cut based on four tiers – salaries reduced and no step increase: <ul style="list-style-type: none"> ≤ \$25,000 no reduction to salary ≥ \$25,001 and ≤ \$40,000 2% reduction to salary ≥ \$40,001 and ≤ \$70,000 3.5% reduction to salary ≥ \$70,001 4.5% reduction to salary <p>Notes:</p> <ul style="list-style-type: none"> The reductions were imposed with the limitation that no employee's salary would be lowered below the bottom dollar amount for that particular tier. In addition to the salary reductions, employees with health insurance through the division had to pay the 9% increase in premiums. Employees that received a salary reduction were paid a one-time supplemental payment from Federal Ed Jobs funds to offset that amount of the reduction in December 2010. All eligible employees were paid a \$275 one-time supplement from Federal Ed Jobs funds in December 2010.
2011-12	<ul style="list-style-type: none"> Salaries frozen at reduced 2010-11 level – no increase/no step increase
2012-13	<ul style="list-style-type: none"> All employees get 1.1% raise to offset cost of assuming 1% of employee share of VRS All employees furloughed two days (no pay); administrators furloughed an additional day for a total of three days All employees assume employee share of VRS Group Life
2013-14	<ul style="list-style-type: none"> All employees get 1.2% raise to offset cost of assuming 1% of employee share of VRS All employees receive additional 2% raise (partially State funded) No employees furloughed Employer resumes paying employee share of VRS Group Life

Source: FCPS Director of Finance, January 2014.

With the arrival of the current superintendent, the director of finance, and the assistant superintendent for operations, sustained focus has been given to division compensation and classification. This team has been committed to an ongoing project to refine, design, or produce salary schedules for employee groups that currently have no salary schedules and to ensure that salaries paid for all work groups in FCPS are competitive with what other

Virginia divisions pay. No compensation and classification study for FCPS using an outside agency has been conducted. Instead, reports shared with the consulting team show that ongoing discussions about salaries and scales are being held regularly among the FCPS board, employees, teacher association representatives, and administrators. Because of the division's inability to fund any recommendations, missing salary schedules have not been developed and adjustments to existing ones have not been made. As a result, issues with both inequity and salary compression have not been properly addressed.

Exhibit 4.8 shows how the average budgeted salaries of teachers and school administrators in 2012 in FCPS compare to school divisions that geographically surround Fluvanna County. FCPS pays higher salaries to teachers and principals than the area average. The salary for assistant principals in FCPS is below the area average. There are two divisions surrounding the University of Virginia in Charlottesville that have higher average teacher salaries. The same two divisions also have higher average principal salaries. In all regards FCPS average salaries are below the Virginia averages.

Exhibit 4.8
Average budgeted salary positions
2012 (adjacent division comparison)

School Division	Teachers	Principals	Assistant Principals
Albemarle	\$ 50,959	\$ 95,344	\$ 77,889
Buckingham	\$ 40,861	\$ 74,447	\$ 66,506
Charlottesville City	\$ 52,790	\$ 89,732	\$ 70,162
Goochland	\$ 43,138	\$ 82,592	\$ 74,682
Louisa	\$ 47,013	\$ 79,962	\$ 63,741
Area Average	\$ 46,952	\$ 84,415	\$ 70,596
Virginia Average	\$ 52,003	\$ 91,982	\$ 76,338
Fluvanna	\$ 50,376	\$ 88,856	\$ 66,428

Source: VDOE, FY2012 Salary Survey.

Exhibit 4.9 shows the same comparison with school divisions that were selected as peer divisions for this review. The average salary that FCPS pays to teachers and principals is higher than the average of the peers. Again, FCPS pays assistant principals less than the peer comparison average. The average salary of FCPS teachers is higher than any other. Only one division pays a higher average salary for principals.

Exhibit 4.9
Average budgeted salary position
2012 (peer division comparison)

School Division	Teachers	Principals	Assistant Principals
Greene County	\$ 44,959	\$ 79,107	\$ 63,123
King George County	\$ 47,401	\$ 82,788	\$ 72,295
Louisa County	\$ 47,013	\$ 79,962	\$ 63,741
Madison County	\$ 43,103	\$ 84,812	\$ 66,680
Orange County	\$ 45,567	\$ 78,714	\$ 66,324
Warren County	\$ 45,096	\$ 92,137	\$ 67,444
Peer Division Average	\$ 45,523	\$ 82,920	\$ 66,601
Virginia Average	\$ 52,003	\$ 91,982	\$ 76,338
Fluvanna County	\$ 50,376	\$ 88,856	\$ 66,428

Source: VDOE, FY2012 Salary Survey.

In 2012-13, the division:

- implemented a reduction in force which caused an increase in teachers retiring;
- consolidated and closed two schools;
- imposed reductions in salary and furloughs; and
- applied salary increases.

The net effect of these actions reduced the average salary for teachers to \$49,612 and for principals to \$88,106; however, the average salary for assistant principals rose to \$67,686. Data for the same period for the surrounding divisions and the peer divisions were not available. An increase of 3.4 percent is budgeted for 2014-15 for full-time contracted employees, of which one percent will be used to increase the cost of employee-funded Virginia State Retirement System (VSRS).

Exhibit 4.10 compares the 2013-14 FCPS starting salaries for teachers with bachelors, masters, and doctorate degrees with the peer divisions. In all areas FCPS pays higher zero-experience, or beginning, salaries. A comparison of salaries of FCPS principals and assistant principals with peer divisions is not provided since FCPS does not currently have a salary schedule for administrators.

Exhibit 4.10
Starting teacher salaries for 2013-14

School Division	Bachelor's	Master's	Doctorate
Greene County	\$ 39,076	\$ 41,076	\$ 43,376
King George County	\$ 36,360	\$ 38,905	\$ 38,905
Louisa County	\$ 41,177	\$ 43,377	\$ 43,377
Madison County	\$ 39,888	Not Listed	Not Listed
Orange County	\$ 38,445	\$ 40,945	\$ 40,945
Warren County	\$ 40,655	\$ 42,860	\$ 44,855
Peer Division Average	\$ 39,267	\$ 41,433	\$ 42,292
Fluvanna County	\$ 41,865	\$ 44,015	\$ 46,165

Source: Salary Scales, Human Resources Department, Division websites.

FINDING 4.10

Eighteen distinct work groups are identified by their job titles in the FCPS employee data base, but only seven of them have published salary schedules.

Only informal notes are used for reference to determine initial salaries for new employees whose jobs are not associated with existing salary schedules or scales.

Currently, published salary schedules or scales exist for:

- Bus Driver;
- Custodian;
- Head School Nurse;
- School Nurse;
- Instructional Assistant;
- Secretary; and
- Teacher.

Other employee groups which have no published salary schedules include:

- Assistant Superintendent
- Principal;
- Assistant Principal;
- Director;
- Coordinator;
- Specialist;
- Supervisor;
- Technology Position;
- Clerk;
- Mechanic;
- Maintenance Worker; and
- Cafeteria Worker.

FCPS administrative leaders have had discussions with the school board about salary schedules, but these have not resulted in the development of salary schedules which would correct serious flaws.

Whenever a new employee is hired in a work group that has no salary scale, the determination of beginning salary is the result of consultation between the three division administrators. Also, whenever a vacant position is posted, the beginning salary is estimated. Inconsistency and inequity are often side-effects.

Employees who participated in support staff focus groups expressed beliefs that, for example, two employees carrying the same job title and having the same experience in FCPS are paid different salaries. They also believe that employees with less experience in FCPS are

being paid higher salaries more than other employees in the same work group with more experience. In the absence of a salary scale, the consulting team had difficulty confirming these perceptions.

However, an examination of the employee data base provided to the consulting team by the director of finance showed that in one instance two bus mechanics with the same experience in FCPS have annual salaries that are \$7,000 different. Two maintenance workers with the same FCPS experience have salaries that are \$8,665 different. These extreme variances may have legitimacy and justification but, again, in the absence of salary scales for these two work groups which might have accounted for prior experience before being hired in FCPS, it is difficult to discover.

RECOMMENDATION 4.10

Develop and publish salary schedules for all pay groups and rework the existing ones to ensure equity in compensation for employees in the same work group and to inform them of their current pay status in relation to other work groups.

One of the main components of employee morale and job satisfaction relies on a division having a compensation and pay plan that assures employees that they are being treated equally in pay. In the absence of this information, often employees distrust division leadership, claiming hidden agendas and favoritism.

FISCAL IMPACT

The superintendent, assistant superintendent, and finance director should plan to spend some hours each month in an ongoing fashion implementing this recommendation, until all pay groups have a workable published schedule. Conducting salary studies internally could require between 20 and 40 hours of staff time per pay group, assuming other school divisions and local employers freely share their pay data.

FINDING 4.11

The FCPS salary scale for teachers reflects the rate of pay for employees based on their years of experience and their professional degrees and contract length.

The salary paid zero experience teachers through 7 years is the same amount. Steps 8 through 22 are grouped in threes. Steps 23 through 27 and 28 through 32 are grouped in fives. The last step is 33 years. There is inconsistency as well as a lack of equity in pay as teachers advance on the scale.

Basically, a 10-month teacher with a bachelor's degree with no experience begins at step zero on the FCPS teacher scale. The current beginning salary is \$41,865. If the same teacher has a master's degree, \$2,150 is added to step zero. For the doctorate, \$4,300 is added. For the next seven years, the salary of that teacher remains the same. **Exhibit 4.11** shows the amount of salary increases or mobility at scheduled intervals as the teacher advances in teaching experience in FCPS. If those employees remain employed in FCPS through step 33, they will see a 56 percent increase or \$23,267 over their beginning salary at zero experience.

Exhibit 4.11
Current interval step increases in salary – FCPS teachers

Steps/Years' Experience	10 Month Salary	Salary Increase	Amount Percent
0 - 7	\$ 41,865	\$ 0	0%
8 - 10	\$ 45,464	\$ 3,599	9%
11 - 13	\$ 46,344	\$ 880	2%
14 - 16	\$ 48,102	\$ 1,758	4%
17 - 19	\$ 50,257	\$ 2,155	4%
20 - 22	\$ 57,436	\$ 7,179	14%
23 - 27	\$ 60,001	\$ 2,565	4%
28 - 32	\$ 62,568	\$ 2,567	4%
33+	\$ 65,132	\$ 2,564	4%
Total		\$ 23,267	56%

Source: FCPS, January 2014.

FCPS already is ranked third highest whenever teacher salary scales are compared with both regional and adjacent school divisions. Division administrators consider neighboring Louisa County as the main competitor whenever it comes to teacher pay. A comparison of the current FCPS scale with the one Louisa County is currently using revealed few differences, other than beginning salary at step zero. Compared to Louisa's beginning salary of \$41,177, FCPS pays \$41,865. Louisa's scale has 35 steps and FCPS' has 33. The top-out basic salary for Louisa is \$64,283 compared to \$64,132. From steps 25 to 35 Louisa County pays its teachers an annual average step increase of \$922. For the last 10 steps on the FCPS scale, teachers receive an annual average increase of \$513.

The FCPS step plan configuration scale theoretically enables employees to progress through the pay grade with each year of tenure as a teacher. Mobility in the scale depends on years of service, yet the schedule does not allocate equal steps for each year. For example, teachers realize varying percentage increases in their movement up the scale. Obvious in the current plan is the compensation reward for teachers who reach both 10 years and 20 years of experience. In comparison, salary advancement is minimal as well as grouped for all other steps. Moreover, while employees are guaranteed to move up a step in their grade each year (barring poor performance on an annual evaluation), in recent years this has not guaranteed an increase in salary. In order to enable employees to move up a step within their respective pay grade without receiving an increase in salary, and in response to the economic downturn, FCPS added steps to the beginning of the teacher scale which were lower than the previous minimum to allow step mobility with minimal reoccurring cost.

Best practices in education compensation suggest front-loading the teacher salary schedules so as to reward early career gains to teacher effectiveness and to provide financial rewards to the teachers most likely to leave the profession. A compensation strategy, such as giving an award for all employees for each year of tenure, sends a message that their good work is immediately recognized and rewarded. There is no compensation research that supports a strategy that high anniversary awards for tenure at 10 and 20 years impacts the decisions that younger employees make to remain employed in their work location. There is research,

however, that claims that a teacher maintains peak effectiveness in the first 20 years of teaching.¹⁶

RECOMMENDATION 4.11

Rework the salary schedule for teachers to provide equal, incremental compensation as they advance on the salary schedule and reduce the maximum step to 25 years.

As part of the assessment of current conditions in regard to the teacher's salary scale, an analysis was performed to determine where the current salaries of 274 teachers fall within the current pay scale. About 82 percent of the teachers (225) are assigned to steps 25 or less. The 49 teachers who are paid on current steps 26 through 33 represent 18 percent. The salary of the lowest paid teachers on the current scale is \$41,865 with zero experience. The base pay of the highest paid teacher at step 33 is \$65,132 -- that teacher has 43 years teaching experience.

The following proposed salary scale for FCPS teachers (**Exhibit 4.12**) is designed with a top-out at 25 steps and an annual \$500 incremental step increase beginning at step two through 25. After step 25, an annual pay increase is not provided. The scale retains the current beginning salary for zero experience teachers - \$41,865 – and keeps the same salary stipends for teachers who have either masters or doctorate degrees. The current basic rate of pay for teachers at step 25 on the 2013-14 scale is \$60,001. The proposed base salary at Step 25 is \$54,365, a difference of \$5,636.

¹⁶ Chad Alderman, *Ladders of Success: Keeping Teachers Pay on Schedule*, April 20, 2009. www.educationsector.org

Exhibit 4.12
Proposed 10-month teacher scale based on \$500 incremental steps

Step	Base	# of Teachers	Total Basic Pay at this Level	# of Masters at this Level	Add to Base for Masters	# of PhDs at this Level	Add to Base for PhD	Masters and PhD Add-on	Salary Costs at this Level
0	\$ 41,865	6	\$ 251,190	3	\$ 2,150	0	\$ 4,300	\$ 6,450	\$ 257,640
1	\$ 42,365	9	\$ 381,285	3	\$ 2,150	0	\$ 4,300	\$ 6,450	\$ 387,735
2	\$ 42,865	7	\$ 300,055	4	\$ 2,150	0	\$ 4,300	\$ 8,600	\$ 308,655
3	\$ 43,365	6	\$ 260,190	1	\$ 2,150	0	\$ 4,300	\$ 2,150	\$ 262,340
4	\$ 43,865	7	\$ 307,055	4	\$ 2,150	2	\$ 4,300	\$ 17,200	\$ 324,255
5	\$ 44,365	9	\$ 399,285	3	\$ 2,150	0	\$ 4,300	\$ 6,450	\$ 405,735
6	\$ 44,865	7	\$ 314,055	4	\$ 2,150	0	\$ 4,300	\$ 8,600	\$ 322,655
7	\$ 45,365	12	\$ 544,380	5	\$ 2,150	0	\$ 4,300	\$ 10,750	\$ 555,130
8	\$ 45,865	13	\$ 596,245	6	\$ 2,150	2	\$ 4,300	\$ 21,500	\$ 617,745
9	\$ 46,365	14	\$ 649,110	4	\$ 2,150	1	\$ 4,300	\$ 12,900	\$ 662,010
10	\$ 46,865	8	\$ 374,920	6	\$ 2,150	0	\$ 4,300	\$ 12,900	\$ 387,820
11	\$ 47,365	7	\$ 331,555	5	\$ 2,150	0	\$ 4,300	\$ 10,750	\$ 342,305
12	\$ 47,865	13	\$ 622,245	5	\$ 2,150	0	\$ 4,300	\$ 10,750	\$ 632,995
13	\$ 48,365	15	\$ 725,475	12	\$ 2,150	0	\$ 4,300	\$ 25,800	\$ 751,275
14	\$ 48,865	8	\$ 390,920	5	\$ 2,150	0	\$ 4,300	\$ 10,750	\$ 401,670
15	\$ 49,365	6	\$ 296,190	2	\$ 2,150	0	\$ 4,300	\$ 4,300	\$ 300,490
16	\$ 49,865	9	\$ 448,785	4	\$ 2,150	0	\$ 4,300	\$ 8,600	\$ 457,385
17	\$ 50,365	8	\$ 402,920	2	\$ 2,150	0	\$ 4,300	\$ 4,300	\$ 407,220
18	\$ 50,865	6	\$ 305,190	6	\$ 2,150	0	\$ 4,300	\$ 12,900	\$ 318,090
19	\$ 51,365	4	\$ 205,460	2	\$ 2,150	0	\$ 4,300	\$ 4,300	\$ 209,760
20	\$ 51,865	13	\$ 674,245	10	\$ 2,150	0	\$ 4,300	\$ 21,500	\$ 695,745
21	\$ 52,365	4	\$ 209,460	2	\$ 2,150	0	\$ 4,300	\$ 4,300	\$ 213,760
22	\$ 52,865	10	\$ 528,650	3	\$ 2,150	0	\$ 4,300	\$ 6,450	\$ 535,100
23	\$ 53,365	9	\$ 480,285	4	\$ 2,150	0	\$ 4,300	\$ 8,600	\$ 488,885
24	\$ 53,865	5	\$ 269,325	0	\$ 2,150	0	\$ 4,300	\$ 0	\$ 269,325
25	\$ 54,365	0*	\$ 0	0	\$ 2,150	0	\$ 4,300	\$ 0	\$ 0
	Total	215**	\$ 10,268,475	105		5		\$ 247,250	\$ 10,515,725

*- Current salaries of teachers already at Steps 25 through 33 and over are frozen. N=49

** - Does not include 10 teachers whose salaries are frozen at step.

Source: Created by Prismatic, January 2014.

The rate of pay for teachers who work 10.5 months (210 days) or 11 months (220 days) is calculated by determining the daily rate of pay on the basic experience step. In other words, step amount plus appropriate degree amount divided by 200 days is basic daily rate of pay. Multiply daily rate times either 210 or 220 days equals rate of pay for teachers who work either 10.5 or 11 months. The table above does not include columns for teachers who work 10.5 and 11 months.

There is ongoing debate about the efficacy of providing stipends for teachers with masters or doctorate degrees which is centered on these unresolved questions: “Does having a masters and/or doctorate degree improve the effectiveness of a teacher?” or “How does paying a teacher a stipend for having a masters and/or doctorate degree improve student achievement?”¹⁷ In future budget years, FCPS may want to consider its position in these

¹⁷ Stephanie Banchero, “Pay Raises for Teachers with Masters Under Fire,” WallStreetJournalonline.com, October 2013.

regards and perhaps substitute increased financial incentives for demonstrable teaching excellence.

FISCAL IMPACT

Exhibit 4.13 shows the potential financial impact if the proposed salary schedule is implemented. These figures do not include potential costs to implementing, such as some teachers needing an immediate pay increase to place them on the proper step, or the savings associated with some teachers who will need to have their salaries frozen for a number of years until the salary schedule catches up with their current salaries.

**Exhibit 4.13
Potential financial impact**

Item	Cost
Budgeted Teacher Salaries Costs 2013-14	\$ 13,876,657
Proposed Teacher Salaries Cost 2014-15	
Frozen Steps 25-33	\$ 3,134,697
New Scale	\$ 10,515,725
Proposed Cost	\$ 13,650,422
Difference	\$ 226,235

Source: Prismatic, 2014.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Rework teachers scale to provide incremental steps and reduce steps to 25.	\$226,235	\$226,235	\$226,235	\$226,235	\$226,235

FINDING 4.12

Regardless of the number of hours worked in a week and regardless of whether the job is part-time or full-time, every employee in FCPS currently is eligible for full benefits. This generosity is not a good business practice for an institution whose financial abilities to provide it are challenged.

With the exception of three labelled part-time teachers, FCPS does not have a policy that establishes some employees as full time and some as part time. Policy GCE – Part-Time and Substitute Professional Staff Employees only covers teachers. Policy GDB – Support Staff Employment Status refers only to temporary, probationary, and regular employees. As a result, the consulting team had difficulty in determining the availability of employee benefits.

A conclusion is that FCPS compensates all its employees with benefits regardless of the number of hours worked within a week or any other contractual agreement. Employees must work a minimum of six hours to participate in the Virginia Retirement System (VRS) according to policy GBOA, but policy GCBD – Staff Leaves and Absences does not delineate the availability of leaves between hourly employees who work 35 to 40 hours per week and those who work less.

The bulk of employees who work less than seven hours per week are assigned to food service and transportation. FCPS employs 32 school cafeteria workers whose individual daily work hours range from one to seven and five cafeteria managers who work from 5.5 to 6.5 hours. Eleven of them also drive FCPS school buses or cars before and after school. Two of the workers also work in the morning and afternoon extended education program. Student transportation, on the other hand, pays 67 bus and/or car drivers whose morning and afternoon hours combined range from one to four. This daily time includes 30 minutes for bus preparation before each run. Included in the number of bus drivers are 11 cafeteria workers and 11 teachers who drive before and after school at the same rate of pay as regular bus drivers.

Each of these employees receives full time employee benefits. Employees who have dual positions are only benefitted for one position.

RECOMMENDATION 4.13

Raise full benefits eligibility to a minimum of six hours and pay part-time benefits to part-time employees.

Before any employee would be eligible for full benefits, he or she would have to work six hours per day or 30 hours per week. Any hourly employee who works less than 30 hours would be assigned part-time status and would be eligible to receive part-time benefits.

Using documents provided by the directors of finance, transportation, and food services, the consulting team has determined how this proposal would affect current employees:

- This recommendation does not change the current base salary of any employee.
- Teachers who also drive buses are not affected by these recommended changes if implemented; they are already contracted full-time employees as teachers.
- Bus drivers, regardless of the number of daily hours worked, and other part-time employees who work a minimum of six hours per day remain eligible for VRS according to Virginia law.
- For those employees who work two jobs (working in the cafeteria and driving a bus), the number of hours worked weekly in both jobs will be combined to determine their full-time or part-time work status.
- Using current data showing the assignment of hours worked, there are 45 regular bus drivers who become classified as part-time because they each work less than 30 hours per week.
- Using the same data, there are six regular cafeteria workers who become classified as part-time because they each work less than 30 hours per week.
- There is one regular cafeteria worker who becomes classified as part-time because she works less than 30 hours per week.

FISCAL IMPACT

For these part-time employees, this proposal would reduce the current employer contribution assisting with health care premiums by 50 percent, or \$219.87, as well as reduce the employer contribution or shared contribution to the VRS also by 50 percent, from

9.99 percent to five percent. **Exhibit 4.14** reflects the estimated changes in costs for these recommended actions.

Exhibit 4.14
Comparison of current and recommended benefits

Current		Recommended	
Salaries Budgeted - 52 Part-Time	\$ 1,493,128	Salaries	\$ 1,493,128
VRS 9.99% - 52	\$ 149,163	VRS 5%	\$ 74,656
Health Insurance -\$439.73 - 52	\$ 22,866	Health -\$219.87	\$ 11,433
Total	\$ 1,665,157	Total	\$ 1,579,218
		Difference:	\$ 85,940

Source: FCPS and Prismatic calculations, January 2014.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Pay part-time benefits.	\$85,940	\$85,940	\$85,940	\$85,940	\$85,940

Even greater reductions in salary costs for FCPS can be realized if hourly rates of pay for both bus drivers and cafeteria workers are reduced.

FINDING 4.14

The division may not always be following the law in regard to overtime pay.

Employees covered by the federal *Fair Labor Standards Act* (FLSA) must receive overtime pay for hours worked in excess of 40 in a work week at a rate of at least one and one-half times their regular rates of pay. Compensatory time off is an option to be used in lieu of monetary pay. FCPS employees who are classified as non-exempt must be compensated according to FLSA rules. There is evidence that some principals, departmental managers, and supervisors in FCPS have been awarding comp time at a rate of one hour for one hour overtime rather than complying with the rule that requires compensatory time off to be paid at time and a half.

The consulting team learned that some custodians who had earned overtime and had elected to use compensatory time off were granted leave based on an hour-for-hour formula. This is clearly in violation of FLSA rules.

RECOMMENDATION 4.14

Ensure that all supervisors of employees eligible for overtime pay and compensatory time off are complying with federal FLSA rules.

The division should require supervisors to maintain written records that are kept showing both overtime earned and subsequent award of compensatory time off.

FISCAL IMPACT

This recommendation will require minimal time on the part of supervisors and should be part of their regular duties.

Facilities Use and Management

This chapter addresses the facilities use and management of Fluvanna County Public Schools (FCPS) in the following sections:

- A. Organization and Management
- B. Plans, Policies, and Procedures
- C. Maintenance Operations
- D. Custodial Operations
- E. Energy Management
- F. School Safety and Security

Facilities use and management includes the planning, construction, maintenance, and cleaning of buildings, energy-efficient operations, the safety of students and staff using the buildings, and the security of all facilities when they are in use, both during and after school hours. More specifically, this area covers the following:

- planning and designing facilities based on educational specifications to meet specific standards and provide a physical framework that enhances learning conditions;
- properly maintaining and cleaning facilities so that teaching and learning can take place in a healthy and clean environment;
- managing energy consumption to save money and conserve resources; and,
- creating proper safeguards to ensure the security of students, faculty, staff, administrators, and visitors at the facilities during and after school hours.

In total, the consulting team gave four commendations in this chapter:

- Closing the two older elementary schools and consolidating students into existing facilities significantly reduced old facility inventory and improved the educational environments for young students.
- FCPS now accommodates all students in permanent facilities which are more economical, more energy efficient and more secure than mobile classrooms.
- FCPS fire safety equipment is maintained in accordance with adopted codes and best engineering practices.
- The new Fluvanna High School was designed and built to energy efficient standards leading to the LEED certification level silver.

The consulting team also made 15 recommendations in this chapter:

- Establish a succession plan and hire the successor to the current maintenance supervisor with a minimum three-month overlap.
- Establish a consolidated division-wide custodian organization.

- Establish one groundskeeper position to maintain the grass, shrubs, and planting beds around the schools.
- Prepare a permanent, ongoing facilities master plan and master planning process with a 10-year strategic horizon and a five-year working horizon of specific cost objectives.
- Obtain new enrollment projections each year.
- Prepare detailed procedures manuals for facilities use and management and revise after any pertinent policies have been updated and augmented.
- Work with the county to transfer some maintenance responsibilities.
- Expedite implementation of the Munis EnerGov Asset Management Software.
- Develop a comprehensive facilities database and maintain accurate records on all facilities.
- Pay the allocable direct costs for custodian cleaning of the cafeterias operated by FCPS food services.
- Standardize custodial training among all custodians.
- Add energy conservation measures whenever an addition, renovation, or any type of capital improvements project is contemplated.
- Conduct an annual fire and general safety inspection to generate a list of items that need correcting.
- Improve security of school access.
- Develop a plan to equip all schools with state-of-the-art high resolution security cameras on the interiors and on school grounds.

The estimated fiscal impacts of these recommendations are shown in the following table. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division; no costs or savings are shown for those recommendations.

Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
5-3	Hire the successor to the current maintenance supervisor with a minimum three-month overlap.	(\$28,250)	\$0	\$0	\$0	\$0	\$0	(\$28,250)
5-5	Hire one groundskeeper.	\$0	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)	(\$170,500)
5-7	Obtain a new enrollment projections study using the Cohort-Compound Method and obtain a new enrollment projections study using the Weldon Center.	\$0	(\$10,000 - \$15,000)	(\$200)	(\$200)	(\$200)	(\$200)	(\$10,800 - \$15,800)
5-15	Hire a consultant for two years to conduct an annual fire safety inspection and make recommendations.	\$0	(\$2,000)	(\$2,000)	\$0	\$0	\$0	(\$4,000)

A. Organization and Management

There are five schools in the division (**Exhibit 5.1**). The high school is a new facility, occupied in August 2012. It was built to accommodate 1,750 students with expansion capability to 2,400; it currently houses grades 8 through 12. The first year, eighth graders were separated from the rest of the high school students, but this school year (2013-14), they are more integrated. The high school was designed and built to LEED standards and upon commissioning, attained silver status.

The previous high school has been re-purposed as the middle school, accommodating grades 5 through 7. Carysbrook elementary school, which was previously the middle school, is now an upper elementary school for grades 3 and 4.

Cunningham and Columbia elementary schools, with 260 and 145 students, respectively, have been closed. Those students are consolidated into Central and West Central elementary schools. West Central elementary school is a 1994 addition to Central elementary school, but the two facilities now have enough students each to qualify as separate schools under Virginia education rules. Central elementary school serves grades 1 and 2 and West Central serves pre-K and kindergarten students.

Abrams Academy, situated between the middle school and the Central/West Central building, is used for alternative education students, a computer laboratory for middle school students, and in the basement, the division's information technology office and computer server room. The old Palmyra school, just north of the historic town of Palmyra, now houses the division's central administrative offices and the adult education programs.

**Exhibit 5.1
FCPS facilities 2013-14**

Facilities	Year Built	Year Remodeled	Gross Square Footage
Fluvanna County High School	2012	N/A	385,000
Fluvanna County Middle School	1976	2012	157,200
Carysbrook Elementary School	1991	1997	79,760
Central/West Central Elementary School	1957	1994, 1999	119,439
Abrams Academy	1936	1952, 1967	12,512
Palmyra Central Office	1936	1952, 1967	20,264
Total			774,175

Source: FCPS maintenance supervisor, January 2014.

FINDING 5.1

The division opened a new high school in 2012. The old high school is now used as the division middle school. Two elementary schools were closed and the elementary school students were consolidated into the remaining elementary school buildings.

When the new high school (**Exhibits 5.2 and 5.3**) was being opened, there were less than 1,200 students in grades 9 through 12. FCPS administration made the decision to add eighth graders to the high school, which brought the school population up to about 1,400. As the high school was designed to accommodate 1,750 students, this was an excellent use of the excess capacity. The old high school building is now the middle school (**Exhibit 5.4**). The elementary school students are now divided among Carysbrook, Central, and West Central (**Exhibits 5.5 through 5.7**).

**Exhibit 5.2
Fluvanna High School**



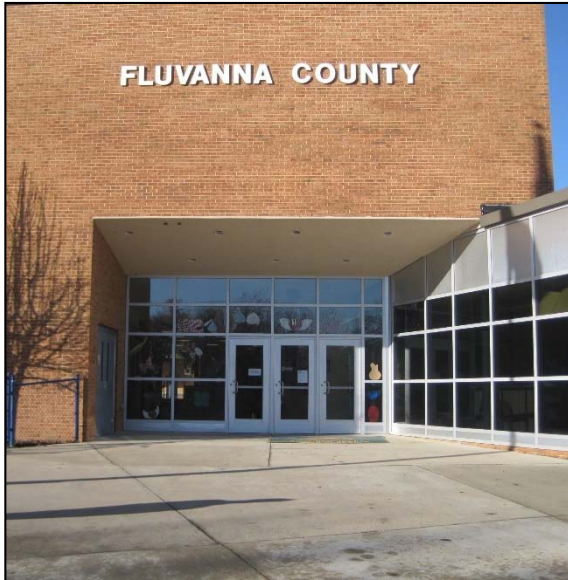
Source: Prismatic, January 2014.

**Exhibit 5.3
Fluvanna High School**



Source: Prismatic, January 2014.

**Exhibit 5.4
Fluvanna Middle School**



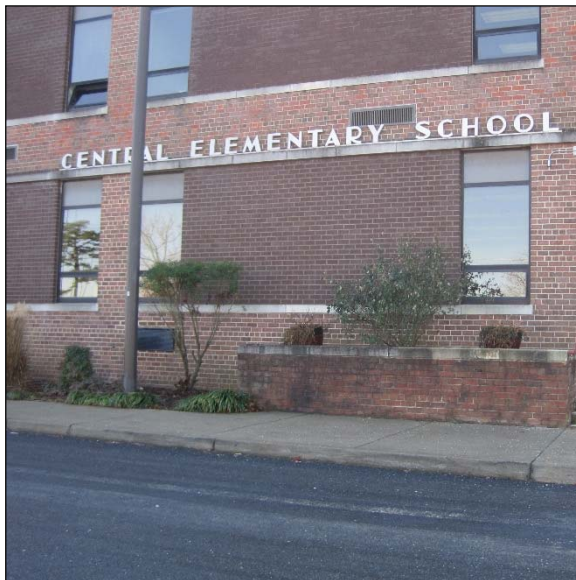
Source: Prismatic, January 2014.

**Exhibit 5.5
Carysbrook Elementary School**



Source: Prismatic, January 2014.

**Exhibit 5.6
Central Elementary School**



Source: Prismatic, January 2014.

**Exhibit 5.7
West Central Elementary School**



Source: Prismatic, January 2014.

COMMENDATION

Closing the two older elementary schools and consolidating students into existing facilities significantly reduced old facility inventory and improved the educational environments for young students.

FINDING 5.2

The division recently returned all mobile classroom units that were under lease. With the opening of the new high school and the closing of the two older elementary schools, all students are now served in permanent facilities.

COMMENDATION

FCPS now accommodates all students in permanent facilities which are more economical, more energy efficient and more secure than mobile classrooms.

FINDING 5.3

The maintenance department lacks sufficient preparation for a smooth management transition, although the supervisor is nearly eligible to retire. The maintenance supervisor oversees the maintenance activities of five maintenance technicians (**Exhibit 5.8**). There are no written corrective or preventive maintenance protocols and most of the management processes and procedures used are literally “in the heads” of these individuals. There are no equipment history records.

Exhibit 5.8
FCPS maintenance organization



Source: Prismatic, 2014.

The maintenance supervisor has a class-6 water distribution license, a backflow prevention device worker license, a master HVAC license, and a master electrician license. One maintenance technician has a master electrician license; another has a journeyman license in HVAC. None of the other staff hold licenses. There is no training provided for the maintenance employees other than the division-wide annual mandatory training, which has little direct bearing on their day-to-day job tasks.

The maintenance supervisor is within a few years of retirement. He anticipates he will likely remain on the job for at least two more years. None of the maintenance employees are being groomed to succeed the supervisor, and only one employee is attending classes in anticipation of sitting for the class-6 water distribution licensure examination.

The division has three schools exclusively on well water (including the new high school), and there are two wastewater treatment plants servicing various schools. Each of these systems

requires licensed operators to oversee their operation and maintenance. The division currently contracts with an individual for wastewater testing.

The division lacks a procedures manual for facilities use and management. Much of the current operation runs on unwritten rules in the heads of maintenance workers. None of the board policies have been updated since 2004.

RECOMMENDATION 5.3

Establish a succession plan and hire the successor to the current maintenance supervisor with a minimum three-month overlap.

This will permit a period of time when the incumbent supervisor can demonstrate his approaches to maintenance management to his successor. This approach is aimed at creating stability and continuity during the transition. During the transition, the incoming and retiring supervisor should work to document all operational policies and procedures concerning facilities use and management, resulting in a detailed procedures manual. Department staff should update this manual whenever policies are modified or supplemented.

FISCAL IMPACT

The cost of overlapping the outgoing and incoming supervisors of maintenance is the three-month salary of the outgoing supervisor. This amounts to approximately \$28,250, including benefits. Although the retirement year of the current maintenance supervisor has not been determined, this figure is shown for 2014-15. It may occur later.

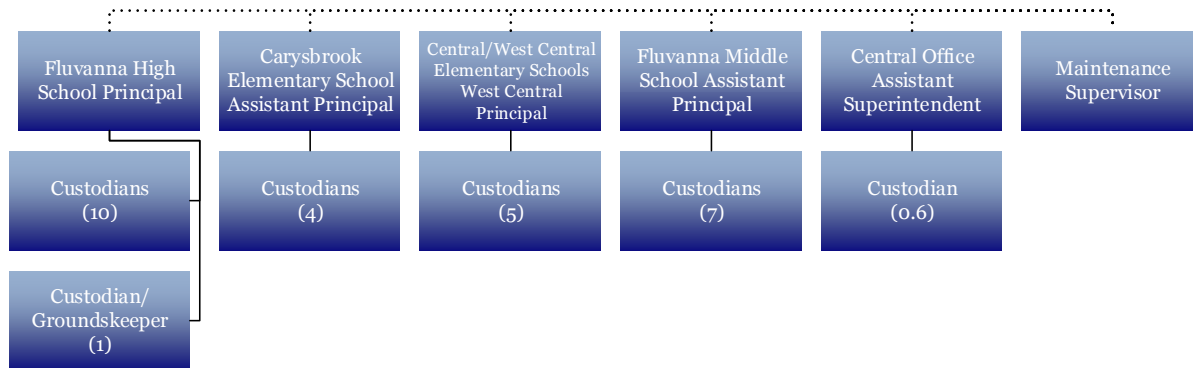
Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire the successor to the current maintenance supervisor with a minimum three-month overlap.	(\$28,250)	\$0	\$0	\$0	\$0

FINDING 5.4

The division lacks a consolidated custodial operation. Custodians have different supervisors and achieve little collaboration.

FCPS custodians report to either the principal or the assistant principal of their respective school (**Exhibit 5.9**). There is no collaboration between the school custodians, though individual school custodians meet periodically to discuss issues with their supervisors.

**Exhibit 5.9
FCPS school custodial reporting relationships**



Source: Prismatic, 2014.

Custodial supplies are ordered by custodians via their respective supervisors and orders are sent to the maintenance supervisor. The maintenance supervisor orders the materials from one of several sources and supplies are delivered directly to the schools as ordered. The maintenance supervisor does not store custodial supplies for the division.

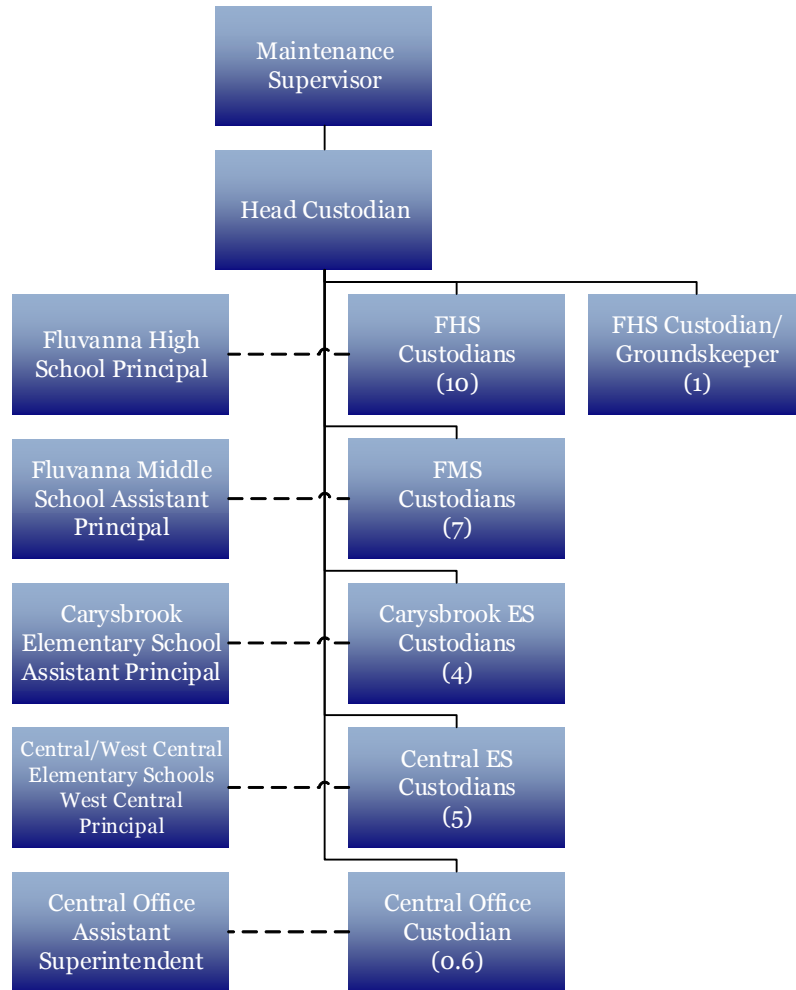
Each of the division schools except the new high school has a custodial services handbook that contains some standardized procedures. The custodians are referred to the guide at the beginning of their employment, but in focus group discussions the consulting team found that the guides are seldom used.

RECOMMENDATION 5.4

Establish a consolidated division-wide custodial organization.

All custodians should report to the maintenance supervisor or other designated administrator for administrative purposes, but continue to report to their respective school administrators for operational purposes. The division could also choose to develop a head custodian position within the consolidated organization, perhaps selecting one of the high school custodians to serve in this role as an additional duty. The recommended organization structure is shown in **Exhibit 5.10**. With a consolidated organization, standardized cleaning methodology and effective safety training could be implemented throughout the division.

Exhibit 5.10
Recommended custodial reporting relationships



Source: Prismatic, 2014.

FISCAL IMPACT

This recommendation requires only a change in reporting relationships, which can be done at no cost.

FINDING 5.5

FCPS does not have a dedicated groundskeeper in the division. Instead, custodians absorb groundskeeping as an additional duty. Custodians maintain the grounds around their respective schools and usually one custodian is the designated groundskeeper for the school. The designated custodian for the high school spends eight hours per day, five days per week during the growing season (nominally May through September) as the high school has such a large manicured area to maintain. This significantly reduces the amount of time available for regular custodial duties. While the consulting team did not observe any school areas that were below cleanliness standards, the

fieldwork was completed in January, when custodians are not also tasked with groundskeeping.

The division employs a retired coach/school teacher who works 0.4 FTE. His only duty is to mow grass on the various athletic fields in the division.

RECOMMENDATION 5.5

Establish one groundskeeper position to maintain the grass, shrubs, and planting beds around the schools.

The groundskeeper should report to the maintenance supervisor. This position would be in addition to the retired coach who would continue to maintain the athletic fields, but who likely should see a reduction in hours during winter months. The full-time groundskeeper could assist in minor maintenance activities when not otherwise occupied in the winter months.

The division should also consider outsourcing this function to a private firm or working with the county to have county staff complete this function. Either option might involve some costs, but they could be less than hiring a full-time individual.

FISCAL IMPACT

The cost in salary and benefits would be approximately the same as an average custodian salary of \$34,100 annually (average custodian salary of \$26,230 plus 30 percent benefits). This cost will be somewhat reduced by a reduction in the amounts currently paid to the retired coach during winter months. The exact amount will depend on the number of months payments to the coach are reduced.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire one groundskeeper.	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)

B. Plans, Policies, and Procedures

Well-planned facilities are based upon the educational program and on accurate student enrollment projections. The facilities design process should have input from stakeholders including administrators, principals, teachers, security specialists, parents, students, and the maintenance and operations staff. The selection of building materials, interior finishes, hardware, mechanical, electrical, and plumbing systems, and of other major building components should be made according to life cycle cost analyses for an optimum total cost of construction, operations, and maintenance.

FINDING 5.6

The division does not have a current facilities master plan. While the division has in the past created and partially implemented capital improvement plans, no planning activities have ever reached the point of permanency. None have ever been part of an ongoing, perpetual facilities master planning process.

Key elements of an effective facilities master plan are:



- **Facility Capacity:** Divisions establish the capacity of each school facility by setting standards that govern student/teacher ratios and the amount of square feet required per student in a classroom. These standards deal with the minimum size of core facilities (such as classrooms, gyms, cafeterias, and libraries) so that schools do not overload these facilities or overuse portable classrooms.
- **Facility Inventory:** An accurate facility inventory is an essential tool in managing the usage of school facilities. The inventory identifies the use and size of each room, which enables planners to set accurately the capacity of each school. Modifications to schools are noted in the inventory so it can be kept up to date.
- **Enrollment Projections:** Effective planning requires accurate enrollment projections at least several years into the future. Accurate projections require planners to examine division demographics and track any new construction activity in the division. Many school planners work in coordination with county and city planners to track growth patterns.
- **Capital Improvement Program:** Effective planning requires the division to anticipate its future needs and balance these against expected resources. A capital improvement program charts future improvements to school facilities and identifies funding sources for them. An effective planning process involves the community at large, identifies division goals and objectives, and prioritizes projects based upon those goals and objectives.
- **Facilities Maintenance Plan:** School facility planning necessitates identifying links between facilities maintenance and facilities construction and renovation. Capital outlay for school construction is generally a more palatable proposition for taxpayers and public officials when a school system demonstrates that existing facilities receive appropriate care and maintenance. Good plans include short and long-term objectives, budgets, and timelines, all of which demonstrate organizational commitment to facilities maintenance.

RECOMMENDATION 5.6

Prepare a permanent, ongoing facilities master plan and master planning process with a 10-year strategic horizon and a five-year working horizon of specific cost objectives.

This ongoing process must mandate durable and deliberately engaged direct school and county collaboration. The planning process must include school utilization based on enrollment projections, periodic building condition assessments, redistricting as necessary, reactive and preventive maintenance, capital improvements projects, additions, renovations, new buildings, school closures, adaptive reuse, mobile classroom management, asset disposition, and any other appropriate and necessary actions related to school facilities.

A detailed description of a recommended and collaborative facilities master planning process for the school division and county government is located in **Appendix A**. Permanent collaboration between the division and county government is essential to the most effective, efficient, and prudent facilities decision-making and funds allocation.

FISCAL IMPACT

This recommendation can be implemented with existing administrative and maintenance staff, assuming the assistance of county staff in the planning process and updating of

building condition assessments. If the division and county opt to outsource the building condition assessments, the consulting team estimates that a private firm could provide services for approximately \$20,000. The time required to develop the plan will depend on the method chosen and the planning process selected.

FINDING 5.7

The division is basing enrollment projections on a 2011 study that erroneously predicted significant student enrollment growth. The study, using the CRA cohort survival method, projected an increase in enrollment over the five-year period from 2010-11 through 2015-16. However, actual enrollment during the first four years of this period has leveled off and could possibly begin to decline. Instead of cohort survival, a more detailed methodology, the cohort-component method, is now considered more accurate.

The 2011 study included contradictory information. Part of the study predicted “... an increase in the K-12 enrollment during the next five year period from 2010-11 through 2015-16...of an approximate 9.3%...”. However, upon review of the study’s detailed enrollment projections for the school years 2010-11 through 2015-16, the increase in total enrollment was projected at only 6.5 percent (**Exhibit 5.11**). The study’s projected increase for the following five-year period from 2015-16 to 2020-21 was 7.6 percent.¹⁸

**Exhibit 5.11
FCPS enrollment projections from 2011 study**

Grades	2010-11	2015-16	Five-Year Increase	2020-21	Five-Year Increase
K-5	1,697	1,875	10.5%	1,883	0.4%
6-8	868	922	6.2%	1,053	14.2%
9-12	1,147	1,157	0.9%	1,319	14.0%
Total	3,712	3,954	6.5%	4,255	7.6%

Source: Crabtree, Rohrbaugh & Associates Architects, and Prismatic calculations.

Another set of enrollment projects are available through the Demographics & Workforce Section of University of Virginia’s Weldon Cooper Center, which produces school enrollment projections for the state and for each local school division, as well as generalized county growth projections. The center’s population projections for youthful residents of Fluvanna County show a growth of 13.6 percent from 2020 to 2040 (**Exhibit 5.12**).

**Exhibit 5.12
Fluvanna County population projections by select age groups**

Year	Age Group				Total
	0-4	5-9	10-14	15-19	
2020	1,626	1,677	1,757	1,534	6,594
2030	1,746	1,802	1,767	1,564	6,879
2040	1,863	1,981	1,933	1,711	7,488
Increase	14.6%	18.1%	10.0%	11.5%	13.6%

Source: Demographics & Workforce Section of University of Virginia’s Weldon Cooper Center and Prismatic calculations.

¹⁸ Crabtree, Rohrbaugh & Associates Architects. *Fluvanna County Public Schools Facilities Study*, September 27, 2011.

However, this does not translate directly into projected enrollment increases over this 20-year period. Detailed five-year enrollment projections using the standard grade progression ration method for the school division were obtained from the center by the consulting team (**Exhibit 5.13**). These projections are divided into grade groups. As shown, these projections not only do not predict an increase in student enrollment; instead they predict a total decrease of 8.4 percent and double-digit decreases in almost all of the elementary grades.

**Exhibit 5.13
FCPS enrollment projections**

Grade	2014-15	2015-16	2016-17	2017-18	2018-19	% Change
K	224	214	207	192	204	(9.0%)
1	238	225	216	209	194	(18.4%)
2	255	234	223	213	206	(19.2%)
3	274	259	238	226	216	(21.2%)
4	296	276	261	239	227	(23.2%)
5	298	301	279	263	242	(18.7%)
6	282	292	295	273	258	(8.3%)
7	291	285	294	298	275	(5.7%)
8	277	303	298	312	317	14.3%
9	367	309	336	331	344	(6.2%)
10	271	331	276	298	291	7.3%
11	262	264	323	270	293	12.1%
12	260	219	222	272	227	(12.8%)
Total	3,594	3,510	3,469	3,397	3,294	(8.4%)

Source: University of Virginia, Weldon Cooper Center, January 2014.

RECOMMENDATION 5.7

Obtain new enrollment projections each year.

The division can obtain enrollment projections from the Weldon Center on an annual basis. Alternatively, the division may elect to obtain enrollment projections using what is considered to be the gold standard methodology, which is cohort-component method and would need to be completed by an outside firm. Given the contradictions in the current enrollment projections, the consulting team recommends that the division obtain a study using the cohort-component methodology in 2014-15 and supplement those data with annual updates from the Weldon Center annually afterward.

As part of revising its facilities master plan based on annual revision to its enrollment projections, the division should likely consider further consolidation of its facilities. The current central office facility is one of the oldest in the division's inventory and not conveniently located to schools. Moving forward, consolidation into the Abrams Academy facility should be considered.

FISCAL IMPACT

A study using the Cohort-Component Method would cost between \$10,000 and \$15,000 for a division this size. The division can obtain enrollment projections from the Weldon Center on an annual basis for \$200 per year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Obtain a new enrollment projections study using the Cohort-Compound Method.	(\$10,000 - \$15,000)	0	0	0	0
Obtain a new enrollment projections study using the Weldon Center.	\$0	(\$200)	(\$200)	(\$200)	(\$200)

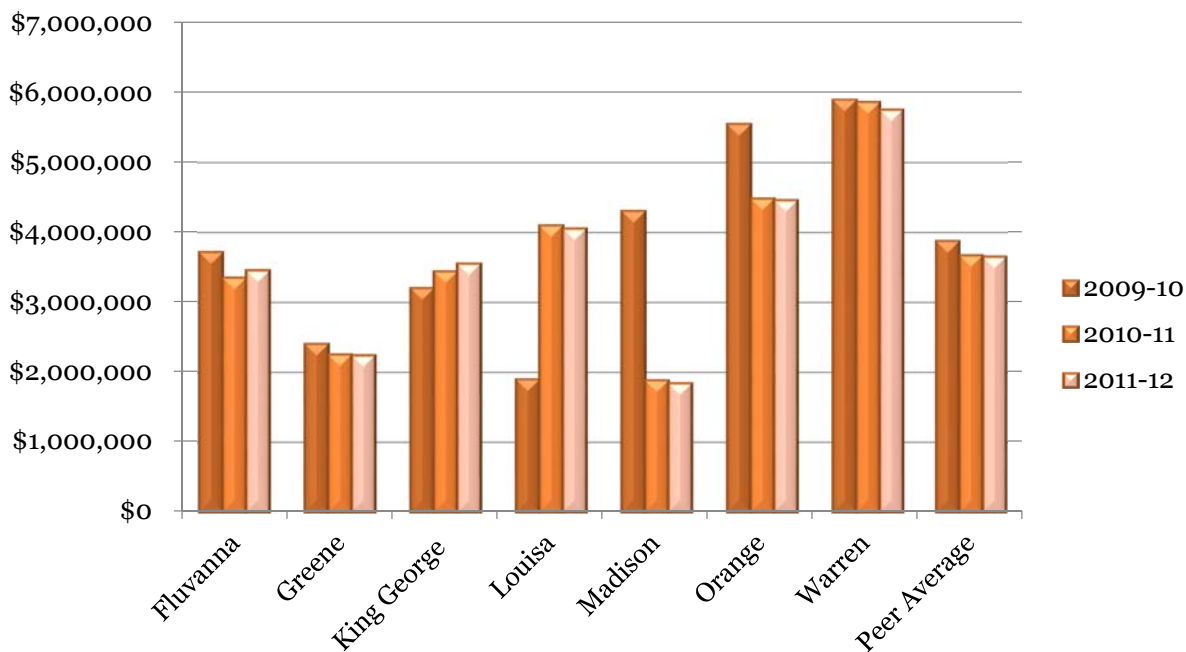
C. Maintenance Operations

The proper maintenance of facilities is critical to ensuring support for an effective instructional program. Research has shown that appropriate heating and cooling levels, building and room appearances, the condition of restrooms and other facilities, as well as occupant safety, all impact how students and staff are able to carry out their respective responsibilities.

Ineffective or inadequate maintenance provisions have proven to lead to increased costs of facility operations by shortening the useful life span of equipment and buildings. Many school divisions have adopted rigorous preventive maintenance programs. They maintain a record of the performance of equipment and the costs of regular maintenance in order to measure the effectiveness of these programs.

Operations and maintenance expenditures over the past three reported years as compared to the peer divisions are shown in **Exhibit 5.14**. Each year, FCPS had lower costs than the peer division average in this area.

Exhibit 5.14
Total O&M expenditures of FCPS and peers



Source: Superintendent's Annual Report for Virginia, Table 13 Disbursements by Division, and Prismatic calculations.

FINDING 5.8

The maintenance department replaced all exit lights with new LED fixtures throughout the facilities. During the consulting team's walk-through, all examined fire extinguishers and battery-powered exit signs and emergency lights were fully functional. This contributes significantly to the safety of building occupants.

COMMENDATION

FCPS fire safety equipment is maintained in accordance with adopted codes and best engineering practices.

FINDING 5.9

The division is short-staffed in maintenance workers. There are six full-time maintenance workers (including the maintenance supervisor who is a "hands-on" maintenance worker himself). There are approximately 775,000 square feet of facilities that must be maintained. Half the facilities are more than ten years old and some are nearly 80 years old.

According to a 2001 study, *Management Program – Maintenance and Operations Administrative Guidelines for School Districts and Community Colleges*, for the Florida Department of Education by the Florida Center for Community Design and Research,¹⁹ there is no direct agreement on industry standard maintenance staffing formulas. However, the

¹⁹ Available from <http://www.fldoe.org/edfacil/manoguid.asp>

study did recommend two reasonable staffing formulas. The simpler formula assumes a need for one maintenance person per 45,000 square feet of floor area. With 775,000 square feet to maintain, this would translate into approximately 17.2 full-time maintenance employees.

RECOMMENDATION 5.9

Work with the county to transfer some maintenance responsibilities.

An alternative to hiring so many additional full time maintenance workers might be for the county to absorb some of the maintenance activities in the division, such as grounds care, snow removal from parking lots and driveways, wastewater treatment plant operation and maintenance, well water systems maintenance and testing, and possibly other maintenance activities. Another alternative might be to outsource a large portion of the ongoing monthly quarterly and/or annual maintenance of HVAC systems, to include chillers, boilers, and air handlers.

FISCAL IMPACT

The exact fiscal impact will depend on the implementation path. Working with the county could potentially fill the need for maintenance workers at no additional cost to the division. Using the lowest salary of the currently employed maintenance personnel, and assuming a benefits rate of 30 percent, hiring 12 additional maintenance personnel would cost the division \$546,000 annually. During the first year of employment, the division would need to provide tools and equipment for each new employee, and an additional six maintenance vehicles at a one-time cost of \$69,600.

FINDING 5.10

The division lacks an effective work order process and preventive maintenance program. The FCPS work order process consists of either email requests or phone calls to the maintenance supervisor. Maintenance workers currently either drive to the maintenance office each morning to pick up their work order assignments for the day, or report directly to one of the schools to continue working on ongoing projects. Often, the maintenance workers receive forwarded email work orders or phone calls from the maintenance supervisor to work on emergent maintenance.

In addition, there is no preventive maintenance program in the division. When asked about preventive maintenance activities, division maintenance staff noted only that they change filters. Without a preventive maintenance program, scheduling and tracking of preventive maintenance, and equipment history do not exist.

A strong preventive maintenance program is essential to the smooth operation of any facility. A complete maintenance program involves:

- timely attention to emergency and corrective maintenance conditions. Emergency and corrective maintenance occur when equipment fails, typically requiring more time and resources to correct than preventive maintenance;
- work designed to avoid equipment breakdowns and prevent minor problems from escalating into major ones which keeps equipment running at peak efficiencies; and

- a long-range plan to address HVAC, mechanical, electrical, plumbing, and low voltage systems and/or component replacements required at the end of their useful life. The plan will typically indicate the current age of the components, what year to expect replacements to occur, and anticipated costs using a Consumer Price Index multiplier or estimated inflation rate.

As an example, Spring Independent School District (SISD) in Texas developed a comprehensive preventive maintenance program that includes the maintenance schedules shown in **Exhibit 5.15**.

Exhibit 5.15
SISD preventive maintenance program schedule

Preventive Maintenance Activity	Frequency
Clean A/C unit filters	Bi-monthly
Change A/C unit filters	3 to 12 week intervals
Clean chiller condenser coils	Bi-annually
Clean fan coil and air handler evaporator coils	Annually
Clean ice machine condenser coils	Every 4 months
Inspect and capacity test chillers	Annually
Change chiller compressor oil and cores	Every 2 years
Check chemical levels in closed loop chilled and hot water piping	Monthly
Clean grease traps	Every 3 months
Inspect and test boilers	Annually
Check roofs, downspouts, and gutters	Monthly, repair as needed – 20 year roof warranty
Inspect exterior lighting	Semi-annually
Inspect elementary play gym lighting	Annually
Inspect and clean gym gas heaters	Annually
Inspect playground equipment	Monthly, repair as needed
Clean fire alarm system smoke detectors	Semi-annually
Inspect all interior and exterior bleachers	Annually, repair as needed
Clean, tighten, and lubricate roll out bleachers	Annually
Check exterior building and concrete caulking	Annually – 8 year replacement
Stripe exterior parking lots	Annually
Check condition of asphalt parking lots	Annually – 12 year replacement
Check carpet	15 year replacement
Check vinyl composition tile floors	20 year replacement
Spray wash exterior soffits and building	Every 2 years or as needed
Replace glass and Plexiglas	As needed
Paint interior of facilities	Every 5 years
Paint exterior of facilities	Every 8 years
Perform general facility inspections	Annually

Source: SISD Facilities Department, November 2010.

The county has purchased the Munis financial management system and the division has purchased the license required to be added to the county license. The system has an asset management module with a work order system that could be implemented in the next several years.

RECOMMENDATION 5.10

Expedite implementation of the Munis EnerGov Asset Management Software.

The division should install and activate the asset management module as quickly as possible. In addition, the maintenance supervisor should survey all critical equipment and place each piece into a preventive maintenance schedule using the manufacturer's recommendations and then develop a life cycle replacement program.

FISCAL IMPACT

The division has already planned for expenditures associated with the Munis implementation. Expediting may require some additional costs, but these are not known at this time.

FINDING 5.11

The division does not have up-to-date and fully documented information about the current condition of its facilities. As a result, the full extent of maintenance deferral is not presently known, nor is there sufficient information to inform the facilities master planning process. The last building condition assessment was completed

Because the division does not currently maintain these data, it cannot easily update a long-range facilities master plan. FCPS has limited information available on each of the buildings within the division. Not having this critical information, FCPS is at risk for incurring additional costs related to future renovations/additions projects. In addition, FCPS could have increased maintenance costs due to the lack of information on warranties, operations, and maintenance manuals.

RECOMMENDATION 5.11

Develop a comprehensive facilities database and maintain accurate records on all facilities.

By maintaining facility records in an organized format, FCPS would be able to update information efficiently when facility repairs, upgrades, etc., are performed. A comprehensive facilities database would enable the division to be more effective in developing, maintaining, and updating the division's long-range facilities master plan.

FISCAL IMPACT

The maintenance supervisor could implement this recommendation as part of his regular duties and should make it a priority before retirement.

D. Custodial Operations

Safe, clean, and sanitary facilities are essential elements of the education environment. Custodians, if properly appreciated and valued, can serve as important early warning sentinels by being the eyes and ears of their building. Most often, they will be the first to hear or smell the signs of possible trouble -- a squeaking belt, a burning armature, an electrical short, a ceiling or roof leak, or a leaky faucet.

The Association of Physical Plant Administrators (APPA), an association of educational facilities professionals, developed these levels of cleanliness, based on appearance:

- Level 1 -- Orderly Spotlessness;
- Level 2 -- Ordinary Tidiness;
- Level 3 -- Casual Inattention;
- Level 4 -- Moderate Dinginess; and
- Level 5 -- Unkempt Neglect.²⁰

Data presented in the APPA 2011-12 Facilities Performance Indicator Report²¹ indicates that 48 percent of responding educational facilities staffed their custodial services to clean to a level 2 standard, and that an additional 44 percent staffed to clean to a level 3 standard.

FCPS has 26.7 FTE custodians assigned to clean school facilities. There are 794,792 gross square feet of facilities. **Exhibit 5.16** tabulates each building’s custodial allocation. Although some of the square footages per custodial FTE are high in comparison to industry standards, not all areas of the high school are in regular use by students and portions of the middle school/Abrams building have lighter student use. The consulting team did not find any significant areas in the division cleaned below a level 3 standard.

Exhibit 5.16
Comparison of FCPS custodian cleaning responsibilities

Facility	Gross Square Feet of Space	Custodial FTE Assigned	Square Feet Per Assigned FTE
High School	385,000	10.3	37,270
Middle School/Abrams	190,329	6.0	31,722
Central/West Central Elementary	119,439	5.8	20,487
Carysbrook Elementary	79,760	4.0	19,940
Palmyra (Central Office)	20,264	0.6	33,773
Total	794,792	26.7	29,768

Source: FCPS and Prismatic calculations, January 2014.

FINDING 5.12

The division’s custodial training is strictly on the job. New custodians are “teamed” with a mentor who instructs the new custodian on how to clean the various areas in the school. Training materials are needed for in-house job education.

RECOMMENDATION 5.12

Standardize custodial training among all custodians.

The division should teach the levels of cleaning as developed in national standards. Custodial training programs are vitally important and available from a variety of private and

²⁰ Specific definitions of each of the levels of cleanliness can be found in APPA *Operational Guidelines for Educational Facilities: Custodial*; Third Ed., 2011; pp. 72-3.

²¹ <http://appa.org/research/fpi/index.cfm>



public sources. The following sample from the Internet illustrates the many different types of training materials available:

- http://www.edfacilities.org/rl/custodial_staffing.cfm - The National Clearinghouse for Educational Facilities (NCEF) contains a resource list of links, books, and journal articles on custodial staffing guidelines, needs assessment, training, and procedures for school buildings and colleges.
- <http://www.trainingservicesassoc.com/coursedesc.htm> - The Training Services Association provides in-house training courses, including courses on custodial services.
- <http://www.cleaningconsultants.com/> - This site contains an online store with books, videos, reports, and software titles specifically for the cleaning industry. These products contain information on subjects such as basic cleaning, housekeeping, window washing, janitorial services, custodial maintenance, bidding, and estimating costs.
- Roesel, Kent and Associates of Roswell, Georgia offers video training programs aimed specifically at custodians and building maintenance staff. The consulting team does not endorse specific service providers, and encourages the school board to consider other private vendors in accordance with procurement policies.²²
- National Pro Clean Corporation offers video training on restroom cleaning and other topics.²³

For further information, forums, professional development opportunities, and conferences concerning professional school facility management, maintenance, and cleaning, refer to and consider membership in the National School Plant Management Association (NSPMA).²⁴

FISCAL IMPACT

The exact fiscal impact of this recommendation will depend on the training materials selected. Some materials can be obtained for free, while others have a nominal cost.

E. Energy Management

Proper energy management is a vital tool for the efficient use of a school division's utilities. Energy audits and other sources of data are essential to control energy costs. Divisions can use such data to monitor and evaluate the success of an energy management program. While the purpose of the energy management program is to minimize waste, the program should also ensure the comfort of the building occupants and encourage energy awareness across the division. The cost of energy is a major item in any school division budget. Thus, school planners generally embrace ideas that can lead to reduced energy costs. Mitigating these costly items through an energy management program can assist in reducing a school's operational cost.

Energy management programs can be implemented in a wide variety of ways, from hiring full-time energy managers to sending out simple shut-down reminders before school dismissal or before a break. One of the most beneficial practices of energy management is the recording of monthly utility bills and the communication of usage and costs to the general staff. Tracking utility usage can give a bird's eye view of how much each school is

²² Roesel, Kent and Associates. Retrieved from <http://www.rkafacility.com/OJT.htm>

²³ National Pro Clean Corporation. Retrieved from <http://www.nationalproclean.com/id78.html>

²⁴ <http://www.nspma.org/>

spending on its utilities compared to other schools. The energy manager can then target the most expensive utilities and work to reduce consumption. This communication helps foster awareness of the expenses of running a school and leading attention to energy conservation measures by both students and staff.

FINDING 5.13

The new high school was designed and built with Leadership in Energy and Environmental Design (LEED) certification as a goal. Upon completion, LEED Silver Status was conferred on the building. LEED certification is the recognized standard for measuring building sustainability. Achieving LEED certification is the industry standard of demonstrating that a building project is truly “green.”

The LEED green building rating system - developed and administered by the U.S. Green Building Council, a Washington D.C.-based, nonprofit coalition of building industry leaders - is designed to promote design and construction practices that increase profitability while reducing the negative environmental impacts of buildings and improving occupant health and well-being. Fluvanna High School was evaluated by the U.S. Green Building Council and achieved the scores²⁵ shown in **Exhibit 5.17**. The computerized energy management system is controlled from a room in the rear of the building with a console readout that is state of the art in digital systems control (**Exhibit 5.18**).

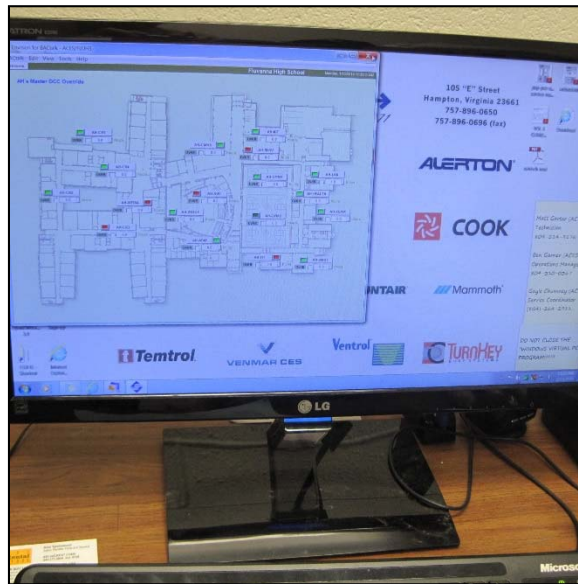
**Exhibit 5.17
FCPS high school silver status awarded March 2013**

LEED Scoring Criteria	FCPS High School Score	Possible Score
Sustainable sites	7	16
Water efficiency	6	7
Energy & atmosphere	7	17
Material & resources	6	13
Indoor environmental quality	7	19
Innovation	4	5
Total	37	78

Source: FCPS, 2014.

²⁵ Scores available at <http://www.usgbc.org/projects/fluvanna-county-high-school>

Exhibit 5.18 High school energy management control station



Source: Prismatic, January 2014.

COMMENDATION

The new Fluvanna High School was designed and built to energy efficient standards leading to the LEED certification level silver.

FINDING 5.14

Although the energy management system built into the new high school is highly effective at controlling electro-mechanical systems, the rest of the FCPS buildings do not have similar energy management control systems. Moreover, division personnel are generally unaware of energy management measures other than turning off lights and manually lowering temperatures in rooms that are not occupied.

The American Society for Hospital Engineers (ASHE) has developed a list of 10 components necessary for a successful energy management program. Although this list was originally intended for hospital organizations, they are applicable to all energy management programs. As recommended by ASHE, the items to consider are:

1. Measure/benchmark current energy consumption.
2. Develop an energy use profile.
3. Complete a greenhouse gas emissions inventory.
4. Build teams, get leadership support, and assign dedicated resources.
5. Set targets/goals.
6. Develop strategic action plans for improvement.
7. Consider adopting a strategic energy management plan.

8. Implement projects.
9. Track, measure, report.
10. Train, educate, celebrate.

The Association of School Business Officials (ASBO), in their publication *Planning Guide for Maintaining School Facilities*²⁶ suggests that the following guidelines will help a school system accomplish more efficient energy management:

- Establish an energy policy with specific goals and objectives.
- Assign someone to be responsible for the division's energy management program and give this energy manager access to top-level administrators.
- Monitor each building's energy use.
- Conduct energy audits in all buildings to identify energy-inefficient units.
- Institute performance contracting (i.e., contracts requiring desired results rather than simply a list of needed products) when replacing older, energy-inefficient equipment.
- Reward employees of schools or buildings that decrease their energy use.
- Install energy efficient equipment including power factor correction units, electronic ballasts, high-efficiency lamps, set-back thermostats, and variable-speed drives for large motors and pumps.
- Install motion detectors that turn lights on when a room is occupied and off when the room is unoccupied.

As an example of successful energy conservation, Westfield Public Schools in New Jersey reports that for the period 2007 to 2013 they have realized a 30 percent reduction in energy costs.²⁷ Their energy management program included replacement of boilers and windows, improved HVAC controls, and reminders for employees to turn off computers, monitors, and lights when not in use. On long weekends, employees are also asked to unplug printers and interactive whiteboards, televisions, VCRs, refrigerators, etc.

Additional information about energy management can be found through the National Clearinghouse for Educational Facilities' Energy Page²⁸ which provides a list of links, books, and journal articles on various methods of heating, cooling, and maintaining new and retrofitted K-12 school buildings and grounds.

RECOMMENDATION 5.14

Add energy conservation measures whenever an addition, renovation, or any type of capital improvements project is contemplated.

The additional cost of the energy conservation measures may be minor when combined with other construction improvements. For example, when a roof replacement is scheduled

²⁶ Available at <http://nces.ed.gov/pubs2003/2003347.pdf>

²⁷ Available

at http://www.westfieldnj12.org/education/components/scrapbook/default.php?sectiondetailid=25412&pagecat=407&pagecat=407&×tamp=1360961202×tamp=1360961248#pitem60459#newImageTag&sc_id=1360961248

²⁸ Available at <http://www.edfacilities.org/rl/energy.cfm>

according to preventive maintenance requirements, the new roof can be designed as a sloped, standing-seam metal configuration that allows roof-mounted mechanical equipment to be housed in the newly created attic space. When an addition or renovation is contemplated, this may be advantageously combined with energy efficient window installation, caulking, and weather-stripping, or the installation of entry vestibules.

FISCAL IMPACT

There is no specific fiscal impact associated with this recommendation, but implementing it should result in reduced energy costs.

F. School Safety and Security

School divisions are expected to provide a safe and secure environment for their students and staff. While divisions are largely insulated from violent crime, it is incidents of violence at schools that draw national attention. School divisions must take proactive measures in safety and security even in incident-free schools. Students, teachers, and other division employees deserve a safe school environment in which to work and learn.

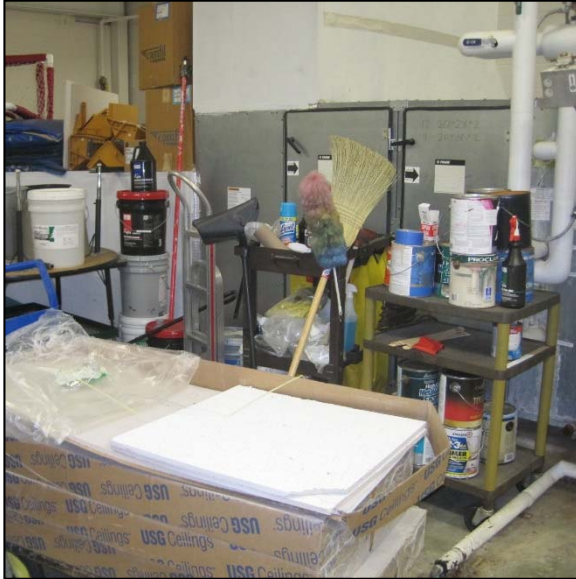
FINDING 5.15

FCPS has fire safety and other safety deficiencies that require corrective action.

During fieldwork, the consulting team found the following deficiencies:

- Flammable paints and chemicals are stored in a mechanical room along with custodian cart and chemicals. (**Exhibit 5.19**).
- FCPS has numerous incandescent light bulbs that are not protected. They constitute a fire hazard and should be either protected or replaced with compact fluorescent (CFL) bulbs (**Exhibit 5.20**).

Exhibit 5.19
Flammable paints stored in mechanical
room at Central/West Central
Elementary School



Source: Prismatic, January 2014.

Exhibit 5.20
Unprotected incandescent light bulbs at
Carysbrook Elementary School



Source: Prismatic, January 2014.

- An air handler in the information technology server room is built on a wooden frame that is part of the return. This frame is required to be fire protected by being sheathed inside gypsum board (**Exhibit 5.21**).
- Stored materials are within three feet of the doors to electrical panels (**Exhibit 5.22**).
- A few fire extinguishers are wall-mounted with the top of the extinguisher higher than the allowed five feet. This reduces the ability of short people to obtain the extinguisher during an emergency (**Exhibit 5.23**).
- A few deep sinks in custodian closets do not have the required backflow preventer installed when a hose is attached to the spigot. The backflow preventer prevents dirty water from being sucked back into the potable water system during potable water system malfunctions causing back-suctions (**Exhibit 5.24**). A simple one-inch bronze garden hose inlet backflow preventer at the Home Depot sells for \$6.97.

Exhibit 5.21
Unprotected wood as part
of a return plenum
at Abrams



Source: Prismatic, January 2014.

Exhibit 5.22
Materials stored within three feet of
electrical panels at Central/West
Central Elementary School



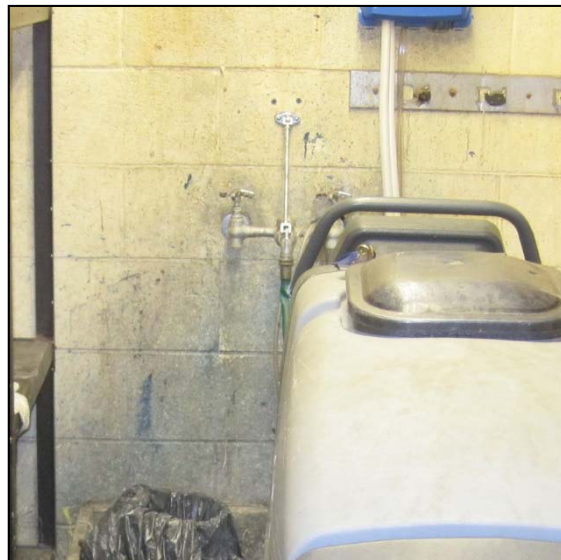
Source: Prismatic, January 2014.

Exhibit 5.23
Fire extinguisher mounted higher than
allowed at Central/West Central
Elementary School



Source: Prismatic, January 2014.

Exhibit 5.24
Deep sink in custodian closet without
a functioning backflow preventer at
middle school

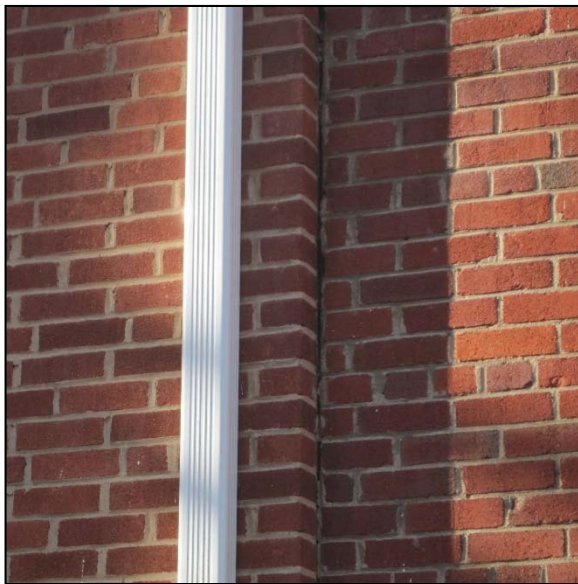


Source: Prismatic, January 2014.

- There is failed caulk at the control joint between the two sections of brick at the front of the Palmyra central office building. Proper caulk is required to prevent intrusion of moisture (rain, snow, ice) which could cause brickwork to leak and fail (**Exhibit 5.25**).

- A broken ceiling tile and a dislodged sprinkler escutcheon ring breach the smoke barrier normally provided by a completely intact suspended ceiling system (**Exhibit 5.26**).
- An automated external defibrillator (AED) at the middle school expired in January 2014. AED expiration dates should be put into a preventive maintenance system to ensure the AED is serviced or replaced immediately prior to the expiration date (**Exhibit 5.27**).
- There are hazardous chemicals stored in various locations in the schools. The schools do not have the Material Safety Data Sheets (MSDSs) for these chemicals (**Exhibit 5.28**).

Exhibit 5.25
Failed caulk at control joint in
brickwork at Palmyra Central Office
Building



Source: Prismatic, January 2014.

Exhibit 5.26
Dislodged escutcheon ring and broken
ceiling tile at middle school



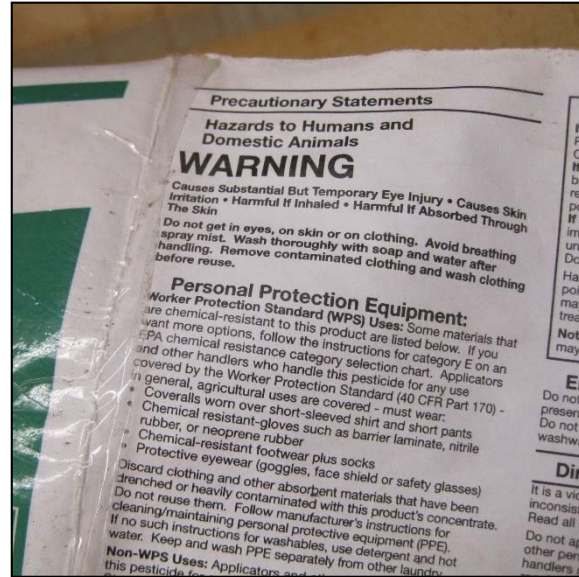
Source: Prismatic, January 2014.

Exhibit 5.27
AED expires January 2014 at middle school



Source: Prismatic, January 2014.

Exhibit 5.28
Hazardous chemicals stored in custodian closet at middle school without MSDSs



Source: Prismatic, January 2014.

- Clorox® is used throughout the division schools. Its use should be minimized due to the potential danger to personnel and the corrosive nature of bleach (**Exhibit 5.29**). Although school divisions often value bleach for its ability to disinfect against such dangers as norovirus, the hazards of using bleach cannot be overstated. There are plenty of new green chemicals that are safe (almost safe enough to drink) that are intermediate in their disinfectant capabilities, the same as bleach. If the division continues to use bleach, staff needs training in the proper mixing of bleach solutions and proper storage of bleach. Bleach only has a shelf life of three months. Currently, the division is storing more than is needed in a three-month period, leading to consulting team concerns that the bleach in use in FCPS is past its shelf life.
- A missing valve handle on a drinking fountain presents a personnel hazard to students, staff, and visitors who attempt to turn on the fountain (**Exhibit 5.30**).

Exhibit 5.29
Clorox® stored in high school
custodian storeroom



Source: Prismatic, January 2014.

Exhibit 5.30
Missing drinking fountain valve handle
at middle school



Source: Prismatic, January 2014.

Maintenance staff noted that the Fire Marshall completes an inspection once a year. That inspection typically finds some violations that are similar to those identified by the consulting team. Although maintenance staff feels it is diligent in correcting deficiencies identified by the Fire Marshall, they indicated that within a month or so, violations tend to creep back in, as school staff members return to hanging items from ceilings, storing inappropriate items in mechanical and electrical rooms, and using too many extension cords.

RECOMMENDATION 5.15

Conduct an annual fire and general safety inspection to generate a list of items that need correcting.

Consult with the fire marshal or other authority having jurisdiction to determine which items violate life safety codes and require immediate action to ensure a safe environment for students, staff, and visitors. The maintenance supervisor should also work with school principals to periodically remind staff to avoid common areas of violations.

The International Codes, including the International Fire Code, have been adopted by the Virginia Uniform Statewide Building Code (USBC).²⁹ These codes apply to school divisions and have strict requirements for life safety equipment such as emergency exit lighting and signage, portable fire extinguishers, and fire sprinkler systems. The safety of individuals, and specifically children in school buildings, is addressed by the Commonwealth of Virginia through adoption of these codes.

²⁹Available at <http://www.dhcd.virginia.gov/index.php/va-building-codes/building-and-fire-codes/regulations/uniform-statewide-building-code-usbc.html>

Articles 109 and 110 of the Virginia Statewide Fire Prevention Code (SFPC) state in part:

The owner shall be responsible for the safe and proper maintenance of any structure, premises or lot. In all structures, the fire protection equipment, means of egress, alarms, devices and safeguards shall be maintained in a safe and proper operating condition as required by the SFPC and applicable referenced standards.³⁰

FISCAL IMPACT

Conducting a fire safety inspection of all spaces can be implemented by current staff, but the division will possibly need to hire an outside consultant for the first year or two. If FCPS contracts with a fire safety expert to assist in this endeavor, the consulting team estimates costs will be approximately \$2,000 each year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire a consultant for two years to conduct an annual fire safety inspection and make recommendations.	(\$2,000)	(\$2,000)	\$0	\$0	\$0

FINDING 5.16

The school offices of some of the schools visited by the consulting team have no direct line of sight to the main entrance, and anyone can easily enter without being stopped. Other school offices are more in line with the main entry, but there is still no deterrent to a person entering without stopping to be registered and badged.

Visitor management and access control are primary factors in securing the safety of any school.³¹ Access control comes in many forms, including physical, electronic control, and fundamental surveillance. Physical access control includes locked doors posted with signage. They not only define, but identify who should be using these entrances, such as students or teachers. The signage should give clear direction to other visitors for their legitimate access point to the school. Electronic access control includes programs to check databases for criminal backgrounds. Fundamental surveillance includes closed-circuit television (CCTV) monitoring.

RECOMMENDATION 5.16

Improve security of school access.

As funds allow, the division should incorporate single-entry vestibules into new construction and renovation plans. These entrances should be monitored by cameras and require visitors to enter a secure area to be vetted with the screening devices currently in use at FCPS. Only after visitors have been screened and cleared will they be allowed to enter via the second door of the vestibule.

³⁰ Available at <http://www.dhcd.virginia.gov/index.php/va-building-codes.html>

³¹ (2013, October). *Campus Safety Magazine*.

FISCAL IMPACT

This recommendation should be implemented as funding allows. Specific solutions for each school could be as much as \$0.5 million.

FINDING 5.17

Some of the FCPS schools are equipped with security cameras, but the number of cameras varies widely at each school. In addition, some cameras are state-of-the-art high resolution, while others are low resolution. The latter do not allow for ready identification of persons, especially when required as evidence in a court proceeding.

A recent study of the National School Shield Task Force found that older schools constructed more than ten years ago have greater security challenges than newer facilities. Newer schools have more architectural attention devoted to security features in contrast to the layout and design of older buildings.³² Older schools typically require more camera resources to provide the same level of security.

RECOMMENDATION 5.17

Develop a plan to equip all schools with state-of-the-art high resolution security cameras on the interiors and on school grounds.

The styles and available camera technology today are endless. The purchase and placement should be a concerted effort between the facilities department and the principal.

FISCAL IMPACT

This recommendation will have a fiscal impact, but the exact fiscal impact will depend on the extent to which existing cameras need to be replaced, and the number of additional cameras and monitoring equipment needed.

³² Hutchinson, A. (2013, April). *The national school shield report*. Retrieved from <http://www.nraschoolshield.com/>

This chapter reviews the financial management of Fluvanna County Public Schools (FCPS) in four sections:

- A. Organization, Management and Staffing
- B. Financial Performance
- C. Planning and Budgeting
- D. Policies, Procedures, and use of Administrative Technology

School divisions in the Commonwealth of Virginia are fiscally dependent upon the local governing body for all appropriations. As such, all local, state, federal and grant funds must be approved by the Fluvanna County Board of Supervisors before such funds are obligated by the school division. The school division is viewed as a component unit of the general government body.

State funds are allocated to each division based upon a funding formula that establishes the base cost for all “Standards of Quality” (SOQ) accounts. State funding is also provided for categorical and incentive programs. The SOQ formula incorporates a division’s Average Daily Membership (ADM), a per pupil amount, and an equalizing factor (Composite Index). The per pupil amount for each of the SOQ accounts is re-benchmarked each biennium based upon statewide prevailing costs. The composite index incorporates a notion of a 55 percent state/45 percent locality sharing of the SOQ costs and is equalized based upon a division’s ability to pay. The composite index which is an indicator of a locality’s ability to pay for public education takes into account a locality’s wealth in the form of property values, personal income, and local taxable retail sales. It attempts to balance (equalize) the financial burden of funding the state mandated SOQ among all school divisions. The higher a locality’s local composite index, the greater a locality’s ability is expected to be to fund public education.

Exhibit 6.1 compares FCPS disbursements for 2011-12 to the average for the six peer divisions selected for this review. As the exhibit shows, FCPS’:

- total disbursements per pupil of \$9,696 is 7.3 percent less than the peer average of \$10,403;
- disbursements for administration of \$254 is 4.5 percent less than the peer average of \$266;
- disbursements for instruction of \$7,262 is 5.6 percent more than the peer average of \$6,880;
- disbursements for transportation of \$637 is 10.3 percent less than the peer average of \$703; and
- disbursements for school food services of \$150 is 140.1 percent less than the peer average of \$361. This appears to be a reporting problem since spreadsheets kept by finance show about twice the amount of disbursements as shown in the superintendent’s annual report. Staff noted that FCPS may have not been reporting personnel costs in this category for as much as a decade.

Exhibit 6.1
2011-12 FCPS school disbursements per pupil by category

Program	FCPS	Peer Division Averages	FCPS Per Pupil Costs Above (Below) Peer Average	
			Amount	Percent
Administration	\$ 254	\$ 266	\$ (11.39)	(4.5%)
Instruction	\$ 7,262	\$ 6,880	\$ 382.37	5.3%
Attendance and Health Services	\$ 86	\$ 130	\$ (44.19)	(51.6%)
Pupil Transportation Services	\$ 637	\$ 703	\$ (65.82)	(10.3%)
Operations and Maintenance	\$ 925	\$ 917	\$ 7.89	0.8%
School Food Services	\$ 150	\$ 361	\$ (210.66)	(140.1%)
Summer School	\$ 17	\$ 17	\$ 0.07	0.4%
Adult Education	\$ 60	\$ 14	\$ 45.30	76.1%
Prekindergarten	\$ 61	\$ 92	\$ (30.93)	(50.6%)
Other Educational Programs	\$ 0	\$ 7	\$ (6.60)	0
Facilities	\$ 0	\$ 648	\$ (648.06)	0
Debt Services and Transfers	\$ 244	\$ 369	\$ (125.12)	(51.3%)
Total Disbursements	\$ 9,696	\$ 10,403	\$ (707.16)	(7.3%)

Source: 2011-12 Superintendent's Annual Report for Virginia, VDOE website, 2014.

Exhibit 6.2 presents a comparison of receipts by funding source for FCPS and the peer divisions. As shown, FCPS funds 40.8 percent of costs for the division from state funds, while the peer average is 33.3 percent. FCPS receives 39.1 percent of its funds from local funds as compared to the peer average of 40.1 percent. Federal funds for FCPS accounts for 7.6 percent of its revenues while the peer average is 10.1 percent. Local funds for FCPS are understated by the amount that the county expends directly from its funds for the division such as the purchase of school buses and some CIP. While this arrangement is allowable under Virginia law, it results in an understatement of the division's costs in VDOE reports and also likely in the county's reports regarding cost of education.

Exhibit 6.2
2011-12 FCPS school comparison of receipts by fund source

School Division	Sales And Use Tax	State Funds	Federal Funds	Local Funds	Other Funds	Loans, Bonds, Etc.
Greene	8.1%	36.7%	6.6%	33.4%	2.4%	12.8%
King George	10.8%	42.0%	11.0%	33.7%	2.5%	0.0%
Louisa	7.6%	22.3%	10.3%	47.9%	11.9%	0.0%
Madison	10.2%	30.3%	11.5%	43.7%	4.3%	0.0%
Orange	10.1%	36.6%	12.4%	38.4%	2.5%	0.0%
Warren	11.4%	36.3%	9.0%	39.9%	3.4%	0.0%
Peer Average	9.6%	33.3%	10.1%	40.1%	5.1%	1.8%
Fluvanna	8.9%	40.8%	7.6%	39.1%	3.6%	0.0%

Source: 2011-12 Superintendent's Annual Report for Virginia, VDOE website, 2014.

Exhibit 6.3 compares the receipts by fund source for FCPS from 2009-10 through 2011-12. The percent of sales and use tax receipts increased from 7.6 percent in 2009-10 to 8.92 percent in 2011-12. State funding increased slightly from 40.5 percent to 40.8 percent and

local funds also increased slightly from 38.6 percent to 39.1 percent. Federal funds decreased from 11.3 percent to 7.6 percent, reflecting the drop in federal ARRA stimulus funds.

Exhibit 6.3
FCPS comparison of receipts by fund source (2009-10 to 2011-12)

Revenue	2009-10	2010-11	2011-12
Sales And Use Tax	7.6%	8.4%	8.9%
State Funds	40.5%	39.7%	40.8%
Federal Funds	11.3%	11.3%	7.6%
Local Funds	38.6%	37.9%	39.1%
Other Funds	2.0%	2.7%	3.6%

Source: 2011-12 Superintendent's Annual Report for Virginia, VDOE website, 2014.

Exhibit 6.4 presents the FCPS and peer division local composite indexes for the 2012-14 and 2014-16 periods. Four of the peers had a lower composite index than FCPS for 2012-14 and two were higher. For 2014-16, Louisa continued to have the highest composite index and Greene the lowest. FCPS and all peers' composite index decreased from 2012-14 to 2014-16.

Exhibit 6.4
FCPS of local composite indexes (2012-14 and 2014-16)

School Division	2012-14	2014-16	Percent Increase Or (Decrease)
Greene	.3724	.3566	(4.2%)
King George	.3787	.3772	(0.4%)
Louisa	.5659	.5642	(0.3%)
Madison	.4486	.4469	(0.4%)
Orange	.3842	.3617	(5.9%)
Warren	.3890	.3870	(0.5%)
Peer Division Average	.4231	.4156	(3.0%)
Fluvanna	.3924	.3834	(2.3%)

Source: VDOE website, 2014.

In total, the consulting team gave four commendations in this chapter:

- FCPS has monthly meetings for school bookkeepers that enable them to discuss common issues and solve common problems.
- The division requires direct deposit of employee pay, which increases efficiency and reduces processing cost.
- FCPS has a budget development process that is open and provides opportunities for public input.
- The division has continued to improve its budget document, which provides all interested parties with easily understood information.

The consulting team also made 20 recommendations in this chapter:

- Evaluate finance staff workloads and redistribute workloads so that all payrolls are assigned to one employee and all accounts payable duties are assigned to another employee.
- Ensure that when a new financial management system is implemented it has the capability to track leave balances for employees that work in more than one program.
- Authorize finance to release payments to vendors and employees without prior board approval and develop easily understood reports to the board showing payments that were made.
- Work with the county treasurer to improve the timeliness of deposit or transfer of funds received by the county treasurer to division funds.
- Develop written guidelines for the consistent use of purchase orders and only require the preparation when necessary to submit to vendors.
- Require food service invoices to be consolidated by program staff prior to submitting to finance and add coding so that expenditures can be entered into the financial management system by location.
- Account for food service funds and extended education program funds separately.
- Ensure recommendations included in activity fund audit reports are communicated to school bookkeepers and any corrective actions needed are addressed.
- Review processes used to compile data for the annual school report to improve completeness and accuracy of data.
- Improve the division's budget calendar by adding more detail and identifying the responsible party for the activity.
- Prepare routine financial reports for the food services program that show the results of operations.
- Develop written and standardized guidelines for all division activity funds to help ensure that funds are administered properly.
- Establish plans and timelines for moving elementary activity funds to Manatee software.
- Require schools to submit monthly activity fund reports that include bank reconciliations to finance in a timely manner and guidelines for finance staff to review reports for internal control purposes.
- Establish timelines and make detailed plans for converting to Munis financial management software.
- Develop a board policy to help ensure the protection of the division's investment in its fixed assets.
- Develop a user manual for school and department staff to assist them in completing finance and budget related duties and provide periodic training.
- Develop desk procedures for the important duties performed by each staff member of finance and cross-train them in each other's duties.
- Develop a procedures manual for activity funds and train staff on the standard approved processes for managing activity funds.
- Identify all critical functions performed by finance staff and document procedures in a comprehensive procedures manual.

None of the recommendations for this area had a fiscal impact that the consulting team could reasonably quantify into dollars. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; these are discussed in the fiscal impact section for each recommendation.

A. Organization, Management, and Staffing

An effective fiscal operation provides accurate, complete and timely information to division management and board members. Financial management is most effective when a division properly aligns its business services functions, establishes strong systems of internal control, and properly allocates staff resources to achieve the best results.

The division's financial operations are under the direction of the finance director who reports directly to the superintendent. Finance is responsible for the functions associated with accounting, reporting, accounts payable, payroll, purchasing, and budgeting. **Exhibit 6.5** presents the organization chart of the finance department. The finance department has a small staff composed of three employees and includes a finance clerk/accounts payable, a finance clerk/payroll, and a finance clerk/food service and Piedmont Regional Education Program (PREP). The primary responsibilities for the finance clerk/accounts payable are processing payments to vendors, managing external grants, and training school bookkeepers. The primary responsibilities of the finance clerk/payrolls are processing the payroll for staff paid from the general fund, serving as the divisions' point of contact with the Virginia Retirement Systems, and preparing employee contracts. The primary responsibilities of the finance clerk/food service and PREP are processing vendor payments and employee payrolls for the food service department and PREP. Each of the three finance clerks has a variety of duties they perform in addition to their primary duties.

Exhibit 6.5 FCPS finance organization 2013-14

Source: Created by Prismatic, February 2014.

FINDING 6.1

School bookkeepers attend monthly meetings that were initiated in September 2012 by the finance director. The meetings allow bookkeepers to discuss issues and procedures that impact their schools and responsibilities. It allows bookkeepers to obtain assistance from their peers and to discuss how similar duties are performed and also to obtain information on what resources and systems that may be available. Prior to the initiation of monthly meetings, bookkeepers would periodically talk by phone but they never met as a group. Each of the bookkeepers indicated that the meetings are very beneficial and are appreciative for the opportunity to meet on a monthly basis.

COMMENDATION

FCPS has monthly meetings for school bookkeepers that enable them to discuss common issues and solve common problems.

FINDING 6.2

Staff assignments in the finance office are not organized in a manner that allows staff to concentrate on limited and specific duties. Payroll duties are not assigned to a single employee and accounts payable functions are performed by two staff members. Payrolls for staff paid from the general fund are performed by the finance clerk/payroll while payrolls for food services staff and staff of the Piedmont Regional Education Program are performed by the finance clerk/food service and PREP. Accounts payable duties are split between the finance clerk/accounts payable and the finance clerk/food service and PREP.

In interviews of FCPS staff in and out of the finance office, the consulting team found the finance staff to be dedicated and hard-working individuals who take pride in completing assigned duties in a timely and professional manner. It is difficult to perform multiple time-consuming duties such as payroll and accounts payable and even more difficult when they have other nonrelated responsibilities in addition to their primary duties.

RECOMMENDATION 6.2

Evaluate finance staff workloads and redistribute workloads so that all payrolls are assigned to one employee and all accounts payable duties are assigned to another employee.

Based on current staff assignments and workloads, the department could likely justify hiring additional staff members. However, implementing efficiencies discussed in other recommendations, such as implementing Munis software and making adjustments to duties of current staff workloads, should assist in adjusting some staff member's workloads.

Since the finance clerk/payroll has announced plans to retire in June 2014, it would be an opportune time to make staff reassignments. Assigning all payroll functions to one staff member would eliminate the need to combine data from multiple payrolls for monthly deductions and reports. Combining accounts payable duties under one staff member would allow that individual to complete similar duties and achieve efficiencies.

FISCAL IMPACT

The finance staff will need to spend some hours in evaluating and adjusting workloads, as well as some time in training the person who will assume all payroll duties. In return, the department should free some staff time on an ongoing basis as the previous duplicative running and reviewing of separate payroll reports is eliminated.

B. Financial Performance

The most fundamental part of making a budget useful is monitoring the progress of actual receipts and disbursements against budgeted figures. By monitoring the progress of the budget throughout the year, the division and taxpayers are aware of how the division's financial plan is working. Reports that are timely, accurate, and easily understood are essential to adequately monitor the progress of a division's annual budget.

FINDING 6.3

Payments to vendors are delayed until the school board approves a report showing payments to vendors for which checks have already been produced. All payments, including direct deposits for employees, have to be approved by the school board at its monthly meeting prior to warrants being released to vendors.

The division does not release payments to vendors and direct deposit for employees until board approval is obtained. Reports to the board itemizing payments to vendors are prepared normally a week before board meetings. Requiring board approval for releasing payments delays payments to vendors and periodically causes late payment penalties. Since reports have to be prepared a week before the monthly board meeting, invoices received shortly after the reports are prepared have to wait until the next monthly meeting before they can be released to vendors, sometimes almost five weeks later.

It was reported to the consulting team that vendors have not refused to continue to provide materials or services to the division because of the delayed payments, but it could impact the amount that the division has to pay for materials and services. It is speculated that vendors could possibly be adding a higher price to their supplies or services to account for the time they are without their payments.

Warrants presented to the school board for approval are for purchases of materials/supplies or services that have already been received by the division. Since the materials/services have already been received by the division, the division is legally bound to make a payment to the vendor and the approval by the school board provides little, if any, value to the process.

Timely payments to vendors are a highly important component of a division's purchasing and payment program. When vendors know they are going to be paid in a timely manner after they provide materials/supplies and services in compliance with contract and purchase order provisions, it improves relations with vendors and in many instances reduces cost.

RECOMMENDATION 6.3

Authorize finance to release payments to vendors and employees without prior board approval and develop easily understood reports to the board showing payments that were made.

The school board should approve a detailed expenditure budget to comply with the Code of Virginia and delegate to the superintendent the authority to release warrants in payment of materials and services based on the approved detail budget. Payments to vendors will be improved by delegating approval of warrants to the superintendent. The school board can still provide oversight of all vendor payments made by the division by receiving the list of payments.

FISCAL IMPACT

Implementing this recommendation should speed payments to vendors, avoiding potential late fees or hidden fees to account for habitually late payments.

FINDING 6.4

Monies received by the county for the benefit of the division are not always deposited into division funds in a timely manner. Each school submits monies collected to the FCPS central office. Central office staff takes the consolidated deposit for the food service fund to the county office, where they are often left in the county treasurer's vault for three or four days before being transported to the bank via armored truck. Also, state and federal money received by the county electronically is not deposited to the division's general fund sometimes for up to two weeks.

Without timely deposits, the division cannot assure there are sufficient funds in the food services fund to cover payroll and the division cannot prepare up-to-date reports for their funds. Until funds are deposited into division accounts, the division is unaware of their receipt and cannot include them in reports, thus making the reports incomplete. Deposits of food services funds are needed to be timely in order to avoid the fund routinely having a negative balance and needing the funds to process checks.

RECOMMENDATION 6.4

Work with the county treasurer to improve the timeliness of deposit or transfer of funds received by the county treasurer to division funds.

The division should work with the county treasurer to ensure a more timely deposit of funds so that the division has better insight into its financial status and is not in danger of failing to have the funds necessary for payroll.

FISCAL IMPACT

Other than time spent in a meeting with the county treasurer, this recommendation requires no resources from the division to implement.

FINDING 6.5

The use of purchase orders is inconsistent and they are not used for the purpose that they are normally intended. All payments to vendors require a purchase order to be completed before data can be entered in the financial management system, however, they are not required prior to purchases being made.

Purchase orders normally are created to document what is to be purchased from a vendor. If a purchase order is not completed prior to the purchase, one is still required. Completed purchase orders are used to document approvals and also to provide financial coding data so that funds can be encumbered in a financial management system.

Most schools and departments prepare and send purchase orders along with invoices received to finance. Purchase orders prepared after a purchase has been made basically duplicate the same information that is on the invoice except for coding information needed for entering data into the financial management system. In some cases, finance receives invoices where purchase orders have not been completed by the department and therefore, finance staff must complete a purchase order for the invoices. Quite often finance staff enters purchase orders into the financial management system before all approvals have been obtained.

Many divisions have found that preparing individual purchase orders for recurring purchases is inefficient and provides little, if any, benefit. When purchases are made that do not require sending a purchase order to a vendor prior to making the purchase, many divisions assign a blanket purchase order number to a vendor at the beginning of the year so that payment data can be entered into the financial management system without a separate purchase order being prepared for each invoice or purchase. This is especially beneficial for payments to utility companies and other vendors where recurring purchases are made.

RECOMMENDATION 6.5

Develop written guidelines for the consistent use of purchase orders and only require their preparation when necessary to submit to vendors.

The finance director should draft the guidelines for use of purchase orders and submit them to the superintendent for approval. The guidelines should then be made available to all FCPS staff with purchasing authority.

FISCAL IMPACT

The consulting team estimates that it will require no more than 10 hours of the finance director's time to draft the needed guidelines. Monitoring adherence to the guidelines will be a routine responsibility of existing finance staff.

FINDING 6.6

Invoices from the food services department are not submitted to finance in the same manner as most schools and other FCPS departments. The food services program sends invoices weekly to the finance department without consolidating the invoices by vendor and preparing purchase orders as do other departments and schools.

The finance staff uses an Excel spreadsheet to consolidate the invoices by vendor and prepares purchase orders so that they can be entered into the financial management system. Requiring finance department staff to consolidate invoices and prepare purchase orders adds an unnecessary workload on the staff. Although food services invoices are segregated by cafeteria, they are not coded so that the expenditures can be entered into the financial management system by location. Not adding coding to food services expenditures by location makes it impossible for the financial management system to produce reports

showing the costs of each cafeteria and requires spreadsheets to be prepared to obtain that level of detail.

RECOMMENDATION 6.6

Require food service invoices to be consolidated by program staff prior to submitting to finance and add coding so that expenditures can be entered into the financial management system by location.

The food service supervisor should develop a process within his department to achieve this end. If needed, the supervisor should consult with the finance director how to most efficiently organize this process. Better initial entry into the financial management system will ultimately provide better reporting and subsequent analysis.

FISCAL IMPACT

This recommendation can be implemented by current staff. Time spent by staff in the food services department implementing this recommendation will be gained by staff in the finance department.

FINDING 6.7

The division's food services fund is used to maintain funds for both the food service program and the extended education program. Not only are the monies for the two programs maintained in the same fund, they are not accounted for separately in the financial management system.

The food services program provides the division's breakfast and lunch meals. The extended education program is an aftercare program available to all FCPS elementary and middle school students. The only overlap in operations and responsibilities between the two programs is that the extended education program employs a few staff from the food services program for a short period each day to serve snacks right after school ends. The snacks are not prepared by the food services staff; instead the extended education director receives donations from local businesses to be served. The extended education program has the use of one refrigerator within one of the school's cafeterias to store these snacks. Beyond that, the programs operate independently.

In order to separate the revenues and expenditures for the two programs, spreadsheets are prepared by finance staff. The total fund is reconciled to bank statements and then separate reconciliations are prepared for both the food services portion of the account and the extended education portion using spreadsheets. **Exhibit 6.6** shows receipts, expenditures, and balances for the cafeteria program and extended education program and the total balance for the fund for 2012-13 and the first five months of 2013-14. The cafeteria program consistently carries a negative balance and is supported by extended education program funds.

Exhibit 6.6
Cafeteria fund (July 2012 through November 2013)

Month	Cafeteria Program			Extended Education Program			Total Balances
	Receipts	Expenditures	Balances	Receipts	Expenditures	Balances	
2012-13			\$ (121,646)			\$ 152,598	\$ 30,952
July	\$ 97	\$ 13,855	\$ (135,403)	\$ 29,220	\$ 33,851	\$ 147,967	\$ 12,564
August	\$ 191,879	\$ 134,680	\$ (78,204)	\$ 19,950	\$ 32,188	\$ 135,728	\$ 57,524
September	\$ 107,395	\$ 137,965	\$ (108,775)	\$ 12,391	\$ 19,166	\$ 128,953	\$ 20,179
October	\$ 126,087	\$ 120,804	\$ (103,491)	\$ 13,730	\$ 13,664	\$ 129,019	\$ 25,527
November	\$ 122,134	\$ 102,622	\$ (83,979)	\$ 10,545	\$ 13,578	\$ 125,985	\$ 42,006
December	\$ 119,653	\$ 99,777	\$ (64,103)	\$ 7,982	\$ 13,156	\$ 120,811	\$ 56,709
January	\$ 97,958	\$ 107,560	\$ (73,706)	\$ 9,547	\$ 12,444	\$ 117,914	\$ 44,208
February	\$ 108,455	\$ 104,252	\$ (69,503)	\$ 11,560	\$ 12,868	\$ 116,606	\$ 47,103
March	\$ 106,717	\$ 93,639	\$ (56,425)	\$ 11,202	\$ 10,875	\$ 116,933	\$ 60,508
April	\$ 105,505	\$ 94,344	\$ (45,263)	\$ 10,484	\$ 10,466	\$ 116,951	\$ 71,687
May	\$ 114,597	\$ 92,482	\$ (23,149)	\$ 10,737	\$ 13,485	\$ 114,202	\$ 91,054
June	\$ 68,158	\$ 96,019	\$ (51,009)	\$ 23,790	\$ 14,135	\$ 123,857	\$ 72,848
2013-14	\$ 1,268,635	\$ 1,197,999		\$ 171,138	\$ 199,876		
July	\$ 2,487	\$ 6,172	\$ (54,694)	\$ 24,526	\$ 21,373	\$ 127,009	\$ 72,315
August	\$ 58,117	\$ 119,229	\$ (115,807)	\$ 17,626	\$ 21,147	\$ 123,488	\$ 7,681
September	\$ 102,434	\$ 103,442	\$ (116,815)	\$ 13,795	\$ 15,344	\$ 121,939	\$ 5,124
October	\$ 131,918	\$ 113,664	\$ (98,561)	\$ 12,268	\$ 10,508	\$ 123,699	\$ 25,138
November	\$ 138,957	\$ 94,472	\$ (54,076)	\$ 8,402	\$ 11,628	\$ 120,473	\$ 66,397

Source: FCPS Finance Spreadsheet, January 2014.

Not accounting for the two programs in separate accounts is inefficient and makes it difficult to prepare reports for the two programs. In addition, information presented in the county's comprehensive annual financial report is misleading since extended education program funds are included in the exhibit titled "food services fund."

RECOMMENDATION 6.7

Account for food service funds and extended education program funds separately.

Summary reports prepared either monthly or quarterly that show a limited number of revenue and expense categories would provide staff, management, and board members with easily understood financial information for the food service and extended education programs. Each program is funded separately. Moreover, food services revenues can only be used within the food services program, so there is no reason to account for the two funds as if they were one program.

FISCAL IMPACT

This recommendation can be implemented by current staff, requiring no more time than is currently spent accounting for the two programs together.

FINDING 6.8

Student activity funds are audited by an outside auditor on an annual basis.

Student activity funds are those accounts used to collect and disburse funds associated with specific school-based activities, such as the French club. As with other funds in a school division, they are subject to annual audit. Audit reports are published after an audit and include a section titled Report of Audit Findings and Recommendations. The section discusses matters that the auditor believes should be brought to the division's attention. The 2012-13 audit identified items where improvements were needed and what should be done. These items included:

- not reconciling bank accounts to monthly financial statements;
- check was written for an incorrect amount;
- not receiving canceled check images back from the bank; and
- receipts not deposited in a timely manner.

The auditor indicated that the items above that pertained to Fluvanna High School were discussed with that school's bookkeeper. The report further stated that the items that pertained to the other schools were not discussed with the bookkeepers of those schools. In addition, school bookkeepers indicated that division management did not make them aware of the report findings or recommendations needed to correct the items included in the Report of Audit Findings and Recommendations.

RECOMMENDATION 6.8

Ensure recommendations included in activity fund audit reports are communicated to school bookkeepers and any corrective actions needed are addressed.

The finance director should develop a procedure to routinely notify school bookkeepers of any recommendations that are made by the financial auditors. He should also review to make sure all needed corrective actions are taken.

FISCAL IMPACT

This recommendation will require minimal time on the part of the finance director.

FINDING 6.9

Data presented to the VDOE for the superintendent's annual report results in incomplete or inaccurate information. The superintendent's annual report is used for a variety of purposes including helping to make future funding decisions both at the state and at the federal level.

Each Virginia school division is required to complete the Annual School Report Financial Section (ASRFIN) that provides financial data on public education programs to the Superintendent of Public Instruction, the Governor of Virginia, the Virginia General Assembly, the United States Department of Education, and the general public. The data from the ASRFIN is used to compile the financial section of the superintendent's annual report.

Accurate and complete data must be submitted in the annual school report in order for it to be useful for the intended purposes. It was noted during the review that inaccurate expenditure data for the food services program seems to have been reported. Spreadsheets kept for the food services program for 2011-12 show expenditures of \$1,332,783 but Table 13 – Expenditures by Division of the superintendent's annual report shows school food fund expenditures of only \$562,285. When comparing FCPS' food services data to other divisions as presented in Exhibit 6.1 earlier in this chapter, the comparison is inaccurate.

Also, when expenditures for division costs are paid directly from county funds and not included in the division's annual school report, it understates the county's portion of costs. Excluding the costs paid by the county for division expenditures understates the portion of total costs contributed by the county and causes data shown in Table 12 – Receipts by Division in the superintendent's annual report to be understated.

RECOMMENDATION 6.9

Review processes used to compile data for the annual school report to improve completeness and accuracy of data.

The finance director should determine the reasons for the apparent financial misstatements regarding the food service program and take necessary corrective action. Moving forward, the finance director should prepare annual data reports that reflect all funds bearing on the operations of the division.

FISCAL IMPACT

With available data, the consulting team cannot estimate how many hours it might take to determine the root causes for the apparent financial misstatements and to develop corrective actions.

C. Planning and Budgeting

Budget preparation and administration are important aspects of overall division operations. Providing adequate resources for programs within the restraints of available funding sources presents administrators with a significant challenge. Sound fiscal management entails forecasting a reasonable but conservative revenue number, as well as reasonable but aggressive expenditures to ensure that adequate funds are available.

A school division's budget is a critical tool that enables a division to adequately maintain and control its financial resources. A school division's budget enables a division to adequately maintain and control its financial resources. School administrators, department heads, teachers and community members should be involved in the budgeting process, as well as the central administration and school board.

FINDING 6.10

FCPS has an open budget development process that provides the public with opportunities to attend budget workshops and provide input to the budget needs and priorities for the division. In addition to a number of budget work sessions in conjunction with board meetings, the development process for the 2014-15 budget included two budget hearings where the public was welcome to attend and provide input. One session was in August 2013 prior to development of the budget calendar and one in January 2014. The division's budget calendar provides dates and locations for budget related board meetings and meetings with the county board of supervisors. In addition, the division's finance director conducts budget training sessions titled School Budgeting 101 that are open to the public and well attended.

COMMENDATION

FCPS has a budget development process that is open and provides opportunities for public input.

FINDING 6.11

The division continues to make improvements to its budget document. The superintendent and finance director both started working in the division in 2010. The budget document for 2010-11 contained only 11 pages of data. Individual pages in the document provided information on possible reductions, existing vacancies, expenditure reductions from the 2009-10 appropriations, revenue estimates, expenditure comparisons for three years, salary scales, and average per pupil comparisons to other divisions. Useful budget information has improved significantly and enables all readers of the document to more easily understand what is contained in the budget numbers.

In addition to the items contained in previous budgets, the 2013-14 budget document contains a listing of board members and administrative and school staffs, memos from the school board chair and superintendent, a table of contents, a number of graphs comparing revenues, expenditures, and average daily memberships, considerable narrative that describes what the numbers mean, and a glossary of terms. Subsequent to publishing the 2013-14 budget, another document titled FY 2014 Budget, containing 41 pages of data, was produced that provides substantial detail for each school, program, and departments. Plans are for the 2014-15 budget documents to include the detail data. Comprehensive and well

organized budget documents provide board members, division staff, and the public with budget information that is easy to understand. Staff members also provided budget seminars to the public to explain the school division’s budgeting process.

COMMENDATION

The division has continued to improve its budget document, which provides all interested parties with easily understood information.

FINDING 6.12

Although the division has a board approved budget calendar that is published on the division’s website, the information on the calendar could be more informative. The calendar shows the dates and locations for the board’s involvement in the development process but lacks dates describing when staff is to be involved and what required duties have to be completed (**Exhibit 6.7**).

**Exhibit 6.7
2014-15 budget planning calendar**

Date	Activity
October 9	Regular School Board Meeting – 6:30 pm Public Hearing – Fiscal year 2015 (2014-2015) Budget – 7 pm
November 7	School Board Budget Work Session – 5:30 pm
November 13	Regular School Board – 6:30 Review School Board Objectives for 2014/2015 and Preliminary FY 2015 Budget Input
December 11	Regular School Board Meeting – 6:30 pm Review FY 2014 Budget Status
December 20	Governor’s Proposed Biennial Budget Released
January 8	Regular School Board Meeting 6:30 pm Update to FY15 Budget Planning Report
January 15	Board of Supervisors and School Board Budget Work Session – Circuit Court Building – 7 pm
January 17	School Board Seminar – Review Board Operations/Strategic Plan – Budget Preparation – 9 pm
February 12	Regular School Board Meeting – 6:30 pm Budget Work Session
February 26	School Board Budget Work Session – if needed
March 5	Superintendent presents Budget to School Board – 5:30 pm
March 12	Regular School Board Meeting – 6:30 pm Public Hearing followed by Budget adoption – 7 pm
March 19	School Board Work Session with Board of Supervisors and presentation of School Board’s budget to the Board of Supervisors – Circuit Court Building – 7 pm
April 9	Board of Supervisors Public Hearing – CIP and Operations Budget – Circuit Court Building – 7 pm
April 16	CIP and Budget Adoption – Circuit Court Building – 7 pm

Source: FCPS Website, January 2014.

The calendar lacks information showing actions required by division staff and when those actions are due. Having a detailed budget calendar is needed to help ensure that all necessary steps are completed in an orderly manner and all involved members in the budget development process (including the public) know when certain actions are scheduled.

Some divisions have found it useful and beneficial to complete a detailed budget calendar using the format shown in **Exhibit 6.8**. Some budget calendars document numerous steps such as the one developed by Hampton City which has almost 30 activities.

Exhibit 6.8
Sample steps for budget planning calendar

Date	Activity	Responsibility
xxx – xxxx	Receive recommendations from schools and departments	Principals and department heads
xxx – xxxx	Governor’s budget released	Governor
xxx – xxxx	Prepare preliminary revenue estimates based on the governor’s introduced budget	Finance director
xxx – xxxx	Advertise for public hearing scheduled for xxx - xxxx	Superintendent’s secretary
xxx – xxxx	Budget workshop - discuss budget issues and receive public comment	Board members, superintendent, and finance director
xxx – xxxx	Prepare preliminary budget document	Finance
xxx – xxxx	Presentation of school board approved budget to Board of Supervisors	School board chairman

Source: Prismatic Services, January 2014.

RECOMMENDATION 6.12

Improve the division’s budget calendar by adding more detail and identifying the responsible party for the activity.

The superintendent and school board should adopt and publish a more detailed budget calendar. It should assign responsibility for each key task.

FISCAL IMPACT

Implementing this recommendation should take minimal time on the part of existing staff.

FINDING 6.13

Financial reports presented to the board do not include reports for the food services fund except for a listing of payments to vendors. The board packet does not include any financial reports that show the results of operations or fund balances for the food services fund. The food services program is maintained in a fund separate from the general fund.

The division does not prepare an annual financial report. Financial information for division funds is presented as a component unit in the county’s comprehensive annual financial

report. Basic financial data for the food services fund is shown in the county's report, however, financial data for the division's extended card program is combined with food service data.

Spreadsheets maintained by the finance clerk/food services – Piedmont Regular Education Program indicate that the cafeteria portion of the fund had a negative balance of \$54,075.68 at the end of November 2013. The spreadsheets further show that the cafeteria's deposits exceeded expenditures by \$70,637 for 2012-13 but expenditures exceed revenues by \$32,576 in 2011-12. Without reports, the superintendent and board members do not have financial data available that show if the cafeteria is operating in a financially prudent manner.

RECOMMENDATION 6.13

Prepare routine financial reports for the food services program that show the results of operations.

Summary reports prepared either monthly or quarterly that show a limited number of revenue and expense categories would provide staff, management, and board members with easily understood financial information for the nutrition program. **Exhibit 6.9** provides an example of a format that the superintendent and finance director could use for monthly or quarterly reports.

Including financial data for the school food fund will provide the board with information to provide oversight to the program's financial position and operations. Providing routine financial data to decision makers helps ensure all are kept informed, and should problems occur they can be corrected in a timely manner.

Exhibit 6.9
Nutrition program for period XX

	Current Period	Year-To-Date	Previous Year Totals
Beginning Balance	\$ x,xxx	\$ x,xxx	\$ x,xxx
Current Revenue			
Federal	\$ x,xxx	\$ xx,xxx	\$ xx,xxx
State	\$ xx	\$ xx	\$ xx
Local	\$ xx	\$ xx	\$ xx
Total Current Revenue	\$ x,xxx	\$ xx,xxx	\$ xx,xxx
Current Expenses			
Salaries	\$ xx	\$ xx	\$ xx
Benefits	\$ xx	\$ xx	\$ xx
Food Products	\$ xx	\$ xx	\$ xx
Supplies	\$ xx	\$ xx	\$ xx
Other	\$ xx	\$ xx	\$ xx
Total Current Expenses	\$ x,xxx	\$ xx,xxx	\$ xx,xxx
Revenue Over/(Under) Expenses	\$ x,xxx	\$ x,xxx	\$ x,xxx
Revenues Over (Under) Expenses and Adjustments	\$ x,xxx	\$ x,xxx	\$ x,xxx
Ending Balance	\$ x,xxx	\$ x,xxx	\$ x,xxx

Source: Prepared by Prismatic, January 2014.

FISCAL IMPACT

Once the format is developed, implementing this recommendation should take minimal time on the part of existing staff.

D. Policies, Procedures, and Use of Administrative Technology

Written policies and procedures serve various functions. It is generally understood that policies communicate what should be done and why; procedures communicate how things should be done. They provide written notice to all employees of an organization's expectations and practices; provide direction in the correct way of processing transactions; serve as reference material; and provide a training tool for new employees. Additionally, written policies and procedures provide a source of continuity and a basis for uniformity.

Without clear, written and current policies and procedures, a division's internal control structure is weaker because practices, controls, guidelines and processes may not be applied consistently, correctly and uniformly throughout the division. An effective fiscal operation

implements detailed policies and internal controls to process the division's daily business transactions efficiently.

Appropriate administrative technology systems support effective financial management by automating routine tasks and reducing reliance on manual paper processing. Administrative technology also typically reduces error rates and speeds processing time.

FINDING 6.14

The division established mandatory direct deposit of employee pay beginning July 1, 2013. Direct deposit expedites the availability of funds to the employees' bank accounts, reduces the possibility of warrants being lost or stolen, and is efficient for division staff. Direct deposit benefits both the organization and its employees. A school division benefits because bank account reconciliation is made simpler and funds are debited from an organization's account on a precisely known date. The division also enjoys reduced processing costs because direct deposited warrants eliminate the need to print and distribute payroll warrants. Direct deposit saves employees time spent in making trips to the banks; moreover, electronically transferred funds generally are available immediately.

COMMENDATION

The division requires direct deposit of employee pay, which increases efficiency and reduces processing cost.

FINDING 6.15

Total leave for employees who work both as a bus driver and food services employee is not maintained in the division's leave system. Only leave time pertaining to the employee's transportation leave is maintained in the leave system.

When an employee works both in transportation and food services, their leave pertaining to food services is maintained on an Excel spreadsheet by finance staff. Since the employees' leave for food services is not in the leave system, the employee has to call the finance department to obtain their leave balances. Staff indicated that they had explored modifying the current financial management system to account for both leave balances but the software vendor indicated it would not be possible.

RECOMMENDATION 6.15

Ensure that when a new financial management system is implemented it has the capability to track leave balances for employees that work in more than one program.

The division should ensure that the new financial management system can accommodate the needs of its various employee groups, including those who are dual employed. If this is not already an option within the new system, some custom programming may be necessary.

FISCAL IMPACT

This recommendation can be included in the list of functional requirements for the new system. Based on the consulting team's experiences in other school divisions implementing Munis, it is likely already an available option in the new system.

FINDING 6.16

Interviews with school bookkeepers indicated that most follow similar processes to manage activity funds. All schools use preprinted receipt books to document the receipt of cash and all use forms either titled “purchase orders” or “expense vouchers” that are approved by principals before purchases are made. Some schools have specific sponsors for each activity fund but some do not. Schools also seem to establish accounts that may not be appropriate for activity funds such as collecting fees for student parking and lock rentals for lockers. Although schools follow similar processes, there are not written guidelines that document standard approved procedures. The high school has a copy of a document published by the Virginia Department of Education dated 1979 that discusses student activity fund guidelines but the other four schools indicated that they had no knowledge of the document.

RECOMMENDATION 6.16

Develop written and standardized guidelines for all division activity funds to help ensure that funds are administered properly.

Developing guidelines that clearly state how activity funds are to be administered for all activity funds will assist principals, teachers, and sponsors in fulfilling their responsibilities. A manual will also provide a good reference for new principals, teachers, and sponsors. The finance director should document the procedures and create a standard manual for activity funds. Once approved by the superintendent, it should be issued as a regulation and provided to principals, teachers, and sponsors involved with activity funds.

FISCAL IMPACT

This recommendation will require minimal time on the part of the finance director. The consulting team estimates it will require less than 20 hours.

FINDING 6.17

Schools do not use the same software to account for student activity funds. The high and middle schools have been using Manatee software for about seven years. One elementary school uses Quicken software, another elementary school uses Money software, and the third elementary uses an Excel spreadsheet. The division wants all schools to use the same software and acquired Manatee software during 2012-13 for each of the elementary schools. The division planned for the elementary schools to begin using Manatee software in July 2013. However, one elementary entered data for July but due to the inability for the software to communicate with their printer, they stopped trying to use it and reverted back to using their old system. The other two elementary schools have not attempted to use the software.

RECOMMENDATION 6.17

Establish plans and timelines for moving elementary activity funds to Manatee software.

The choice of software to account for activity funds should not be left to the elementary schools. The finance director should include in the previously recommended guidelines for activity funds detailed directions on how to successfully employ the Manatee software. The

technology director may need to provide staff with assistance to troubleshoot any interface problems.

FISCAL IMPACT

Given the available data, the consulting team cannot estimate how much staff time might be required to successfully implement this recommendation. The division already owns the software, so there will be no monetary fiscal impact.

FINDING 6.18

Although monthly reports are prepared for student activity funds and submitted to the central office, there are no written guidelines as to what should be included in the reports. Moreover, there are no established deadlines when reports are to be submitted.

As a result of schools not using the same software program for activity funds, standard automated reports cannot be produced by each school. The two schools that do use the Manatee software do not submit the same reports. The Fluvanna Middle School is the only school that includes a bank reconciliation. Each of the three elementary schools uses a standard form that is manually prepared to report monthly balances, receipts, and disbursements for each activity fund. There seems to be no follow-up when reports are not received by finance. As of January 2014 the latest reports received from the five schools and provided to the consulting team were December 2013, November 2013, October 2013, September 2013, and May 2013.

Activity fund receipts and disbursements are made by schools without requiring approvals from division central management. In order to provide some oversight to student activity funds, most divisions require monthly reports to be sent to their finance department along with bank reconciliations. Without reports and bank reconciliations reviewed by finance staff there is no checks and balances for management of the activity funds.

RECOMMENDATION 6.18

Require schools to submit monthly activity fund reports that include bank reconciliations to finance in a timely manner and guidelines for finance staff to review reports for internal control purposes.

Guidance as to format and schedule could also be included in the previously recommended guidelines for activity funds. School staff members could be trained during already scheduled in-service days.

FISCAL IMPACT

This recommendation will require minimal time on the part of the finance director to develop and distribute a desired format for the monthly activity fund reports. The consulting team estimates it will require less than 10 hours. School staff members may need to spend some time in training on how to complete the report.

FINDING 6.19

The division plans to convert to a new financial management system, but has not established formal plans or timelines for the implementation. Successful conversions to new automated systems require significant planning that includes the establishment of timelines and identification responsibilities and assignment of those responsibilities to specific employees.

Fluvanna County acquired and converted county operations to Munis financial software in 2012-13. The division wants to convert its financial operations to Munis next year, but has not established when that conversion is to take place. The county has included \$205,000 in its CIP for the purchase. It is generally understood that conversion of financial operations is best undertaken at the beginning of a fiscal year so that data for a year are not split between two systems. It is further understood that conversion of a payroll system should be converted at the beginning of a calendar year.

Finance staff members have visited with staff of other school divisions that use Munis software to gain an initial understanding of the software. The visits have also provided finance staff with information pertaining to the issues the other divisions had when implementing the system and how they overcame them.

Successful conversions require a significant time commitment for staff involved and detailed planning for their involvement. Staff must be trained and the system tested using division data prior to the conversion date. The involvement of the division's technology staff will be required to assist with technical issues. Training will not only be needed for finance staff but all division staff that will be expected to use any of the system's components such as employee leave or purchase orders.

RECOMMENDATION 6.19

Establish timelines and make detailed plans for converting to Munis financial management software.

Once the contract has been executed to purchase Munis, the division should also contract for a project manager to facilitate the transition. The project manager should be responsible for developing the detailed timeline and plans necessary to make the transition successful.

FISCAL IMPACT

The contracting of the project manager position is detailed in Chapter 8 of this report.

FINDING 6.20

The division does not have a listing of fixed assets. Board policies have not been implemented to provide direction to management of division fixed assets.

Fixed asset policies normally address many issues that pertain to an entity's investment in fixed assets. Policies include guidelines for all fixed assets and regularly address:

- who is responsible for accounting for the division's investment in fixed assets and the system that is to be used for the accounting;

- responsibility and accountability for the property and equipment owned;
- requiring annual physical inventories and approvals that must be obtained before items can be deleted from asset records;
- capitalization thresholds for property, equipment, land and infrastructure;
- depreciation methods, salvage value and a schedule of estimated useful lives;
- determining capitalized improvements versus maintenance expenses;
- reporting junked, stolen or missing property and what approvals are required to delete items from the inventory;
- receiving donated property; and
- transferring assets between schools and departments.

To protect its investment in fixed assets, divisions must track their assets and have policies that provide direction on how the assets are to be managed. As items are acquired they should be immediately added to the listing and when the division disposes of an item through normal processes they are taken off the listing. When an item cannot be found the situation is examined and proper approvals required before the item can be deleted from the asset inventory.

Best practice examples have shown that divisions that have control over fixed assets are those that assign responsibility to specific individuals and then hold those individuals accountable for any missing assets or other discrepancies. In addition, board members review and approve reports that show a detailed listing of any missing or stolen assets and who was responsible for the custody of those assets.

RECOMMENDATION 6.20

Develop a board policy to help ensure the protection of the division's investment in its fixed assets.

Developing policies for the division's fixed assets will help ensure that the investment in fixed assets is properly managed and protected. The division anticipates implementing the fixed asset module in Munis; this recommendation will provide guidance as to how information is maintained in that module.

FISCAL IMPACT

This recommendation can be implemented by current staff. Drafting of the policy will require no more than a few hours of staff time.

FINDING 6.21

Departments and schools are not provided with detailed user manuals to guide them in completing duties related to finance and budget responsibilities. In addition staff in schools and departments are provided little training on how to complete their duties pertaining to financial operations.

School and department staff must follow specific processes and complete a variety of finance-related documents accurately and timely. A variety of processes must occur in order

to help ensure employees are paid timely and accurately, materials and services are ordered and received when needed, vendors are paid timely and accurately, and activities such as those relating to travel reimbursement are completed.

Processes related to financial activities are often difficult for staff who do not perform those functions on a continuous basis and who are also required to perform a variety of other duties. An easily understood reference manual for financial duties and processes greatly reduces errors and amount of time required by business office staff to repeatedly explain processes.

Many school divisions provide school and department staff with a user manual to provide policy and direction on completing financial and operational duties. These manuals routinely include guidance for:

- purchasing policy and procedures;
- vendor payments;
- payroll activities;
- leave reporting;
- fixed asset inventory processes;
- mail delivery;
- travel;
- workers' compensation; and
- other topics that impact division employees and administrative staff duties.

Such manuals are normally discussed/distributed at orientation for new employees and discussed each year in work sessions prior to school beginning for returning employees. Administrative staff more clearly understands the processes and requirements for various finance-related topics that impact their responsibilities when they have manuals available for reference. Errors occur less often and administrative staff spends less time asking how to perform a process. Manuals also provide a means of documenting acceptable processes that enable accountability to be enforced.

RECOMMENDATION 6.21

Develop a user manual for school and department staff to assist them in completing finance and budget related duties and provide periodic training.

Written guidelines will help ensure schools and departments are performing financial related processes in a standard and efficient manner. Written guidelines will provide new staff with readily available data to assist them in learning the appropriate way to perform important functions. Useful manuals not only provide detailed steps on how to complete a particular form, but also include policies such as delegated purchasing and the associated penalties for not following the policies. Manuals should also be made available on the web site and training sessions should be routinely offered where processes covered in the manual are discussed and questions answered. Manuals should be continually updated to remain relevant.

FISCAL IMPACT

The consulting team estimates that the finance director will need approximately 40 hours to develop the needed manual. Portions could be drafted initially by finance staff.

FINDING 6.22

FCPS does not have written desk procedures that document the important daily duties of the finance staff. In addition, staff is not cross-trained. Should a staff member be absent from work for an extended period of time, it would be difficult for FCPS to complete its responsibilities.

The finance clerk/accounts payable began work in the department in November 2013 and continues to uncover duties that were performed by the person previously occupying the position. She continues to struggle to determine how to complete the duties. In addition, the finance clerk/payroll has announced she plans to retire in June 2014, but no succession planning was taking place at the time of the consulting team's fieldwork.

For internal controls to operate effectively, all employees need a documented reference source detailing how they perform their assigned duties. An employee desk manual contains much more detail than a procedures manual and is basically a step-by-step written document approved by management that describes how employees are expected to complete their individual assignments. Detailed desk procedures facilitate cross-training of employees and training of new employees since they provide the step-by-step instruction needed to perform tasks. This increases internal control by helping to ensure processes are performed correctly.

Without written directions, new employees struggle to complete assigned duties. Also employees complete their duties based on verbal directions which many times were provided some time ago. Once time has passed after verbal directions are provided, employees often begin to perform their duties differently than what management expects, and employees also improvise and develop their own ways to complete a certain process. Processing transactions in an unapproved manner often leads to inefficiencies and errors. A desk procedures manual covers activity steps in sufficient degree of detail so that an individual using it for the first time can perform the steps with very little additional instruction. It also lists specific forms to be used, computer screens accessed, fields on the screen in which information is entered, as well as identifying other positions that supply information for the procedure, or to which it sends information.

RECOMMENDATION 6.22

Develop desk procedures for the important duties performed by each staff member of finance and cross-train them in each other's duties.

Each staff member should develop desk procedures for their duties. Once they have developed the desk procedures, the finance director should determine which staff members should be cross-trained on what duties. Staff being cross-trained should review the procedures to help ensure they are easily understandable and can provide sufficient guidance to whoever performs the duties.

Desk procedures should contain sufficient detail to enable an individual who uses it for the first time to perform the duties with little, if any, additional instruction. It is important to list

specific forms used, computer screens accessed, fields on the screen in which information is entered, as well as identifying other positions that supply information for the procedure or to where information must be sent. Many times, employees find the process is more understandable when a flowchart is included.

FISCAL IMPACT

Development of desk procedures may take significant staff time. However, it can be scheduled when the staff is relatively less occupied with day-to-day duties.

FINDING 6.23

Schools have not been provided with standard up-to-date written guidelines for the management of activity funds. Each school manages a bank account where funds are received from student activities. Funds are deposited into the bank accounts and principals disburse funds for needed items.

A considerable amount of funds is received and disbursed by schools through the activity funds maintained in local bank accounts. During 2012-13 a total of \$747,384 was disbursed through the local bank accounts. Fluvanna high school received and disbursed over five hundred thousand dollars during the year. **Exhibit 6.10** shows the funds received and disbursed for each of the schools during 2012-13.

Exhibit 6.10
Student activity funds

School	Cash Balances June 30, 2012	Cash Receipts	Cash Disbursements	Cash Balances June 30, 2013
Carysbrook Elementary	\$ 0	\$ 82,567	\$ 65,268	\$ 17,299
Central Elementary	\$ 50,122	\$ 59,611	\$ 59,857	\$ 49,876
Columbia Elementary	\$ 4,852	\$ 2,733	\$ 2,441	\$ 5,144
Cunningham Elementary	\$ 5,659	\$ 6,325	\$ 11,985	\$ 0
Fluvanna Middle	\$ 57,183	\$ 77,603	\$ 77,737	\$ 57,049
Fluvanna High	\$ 111,032	\$ 542,132	\$ 530,097	\$ 123,067
Total	\$ 228,849	\$ 770,971	\$ 747,384	\$ 252,435

Source: FCPS Activity Funds Audit, June 30, 2013.

There is not a standard procedures manual that provides formal guidance to principals, teacher/sponsors or secretary/bookkeepers on the proper process to follow in order to adequately document transactions or what is acceptable for the funds to be expended on. Without an activity fund manual that establishes policy and provides guidance on how to manage the funds, the division is at risk of not fulfilling its responsibility to properly administer student activity funds.

Manuals normally include guidance on what is acceptable for the funds to be expended on, how transactions are to be documented, when actions are to be taken, such as when to follow-up on outstanding checks, and how to provide backup to the systems. These actions have been discussed by the outside auditor in his management letter points.

RECOMMENDATION 6.23

Develop a procedures manual for activity funds and train staff on the standard approved processes for managing activity funds.

Developing an operations manual for schools to use that clearly states how activity funds are to be administered will assist principals, secretary/bookkeepers and sponsors with fulfilling their responsibilities. A written manual will provide a good reference for new principals, secretary/bookkeepers and sponsors. The manual also will assist a staff person who is asked to fill in when a secretary/bookkeeper or sponsor is absent for an extended period of time.

FISCAL IMPACT

Staff time for creating needed manuals was estimated in a previous recommendation in this chapter.

FINDING 6.24

The division does not have procedures for the important financial processes that must be performed. Documented procedures are necessary for proper internal controls and to help ensure that financial transactions are completed in a manner approved by management.

Division financial procedures are normally compiled in a comprehensive division-wide document. At a minimum the manual usually includes:

- budget policies and procedures;
- payroll policies and procedures;
- division accounts payable processing;
- activity fund policies and procedures;
- division procedures governing approvals for checks and journal vouchers;
- procedures for travel reimbursements;
- grants management;
- textbook management;
- division purchasing processes; and
- division procedures governing distribution of financial reports.

Divisions with effective, comprehensive procedure manuals update them regularly to ensure that staff has accurate information. They clearly convey acceptable and unacceptable practices as well as the consequences of violating the provisions. To ensure its availability to staff, many divisions also put the manual on their Web site. The manual identifies roles and responsibilities and controls to be observed; and identifies areas for secondary review and approval

RECOMMENDATION 6.24

Identify all critical functions performed by finance staff and document procedures in a comprehensive procedures manual.

A comprehensive finance procedures manual will assist staff in their duties and help ensure that the processes are being performed in the approved manner. When staff perform their duties without the benefit of up-to-date written procedures they many times fail to perform those functions in a manner that complies with office policies due to being uninformed or misinformed of what the appropriate process actually is.

FISCAL IMPACT

Staff time for creating needed manuals was estimated in a previous recommendation in this chapter.

Transportation

This chapter reviews the transportation operations of Fluvanna County Public Schools (FCPS) as follows:

- A. Organization and Staffing
- B. Planning, Policies, and Procedures
- C. Routing and Scheduling
- D. Training and Safety
- E. Vehicle Maintenance and Bus Replacement Schedules

The primary objective of school transportation is to provide safe, timely, and efficient transportation services to students. The Code of Virginia states, in part, “County school boards may provide transportation of pupils, but nothing herein contained shall be construed as requiring such transportation.” The federal *Individuals with Disabilities Education Act (IDEA)* requires a school division to provide transportation for students with disabilities if the school division also provides transportation for students in the general population, or if students with disabilities require transportation to receive special education services. Virginia’s 15,000 school buses transport nearly one million students daily. School divisions collectively operate the safest form of transportation in the country; school buses are safer than any other form of public or private mode of transportation.

The Commonwealth does not provide explicit funding for transportation. Thus, every dollar saved in providing student transportation can be redirected to the classroom.

Exhibit 7.1 compares FCPS’ transportation data for 2012-13 to the demographic cluster average. Fluvanna’s operational cost per mile of \$3.34 for regular transportation was 30 percent higher than the cluster average of \$2.25. Per student cost for regular transportation was \$167 higher than the cluster average. The division’s operational cost per mile for exclusive transportation was 18 percent higher than the cluster average.

Exhibit 7.1
2012-13 transportation comparisons: Fluvanna and cluster average

Entity	Fluvanna	Cluster Average	Amount Difference	% Difference
Regular Transportation				
Miles	648,843	532,527	116,316	17.9%
Operational Cost Per Mile	\$ 3.34	\$ 2.25	\$ 1.09	29.7%
Per Student Cost	\$ 659	\$ 492	\$ 168	24.4%
Ratio of Riders to ADM	0.8	0.7	0.2	23.0%
Exclusive Transportation				
Miles	38,815	179,947	(141,132)	(363.6%)
Operational Cost Per Mile	\$ 3.66	\$ 2.99	\$ 0.67	18.3%
Per Student Cost	\$ 8,889	\$ 7,263	\$ 1,626	18.3%
Ratio of Riders to ADM	0.00	0.02	(0.12)	(305.3%)

Source: VDOE, 2012-13 Student Transportation Report.

Although the division transported 3.9 percent fewer regular transportation students in 2012-13 than in 2010-11, the number of miles driven has increased by two percent. Regular

transportation total operating cost per mile has decreased, but the per student cost has increased. Both operational costs per mile and per student cost for exclusive transportation increased between 2010-11 and 2012-13. **Exhibit 7.2** compares division transportation data for 2010-11 to 2012-13. The transportation supervisor was new to the division in 2012-13. Division staff has concerns with the quality of data recorded for the period prior to 2012-13. Moreover, the new transportation supervisor has made changes in departmental protocols and recordkeeping that could make true comparisons of 2012-13 data to prior years difficult.

Exhibit 7.2
Trend in transportation measures

Entity	2010-11	2011-12	2012-13	% Change
Regular Transportation				
Pupils	3,220	3,286	3,094	(3.9%)
Miles	627,335	648,843	639,897	2.0%
Buses	68	72	74	8.8%
Total Operational Cost	\$ 2,174,335	\$ 2,166,123	\$ 2,103,343	(3.3%)
Operational Cost Per Mile	\$ 3.47	\$ 3.34	\$ 3.29	(5.2%)
Per Student Cost	\$ 675	\$ 659	\$ 680	0.7%
Exclusive Transportation				
Pupils	14	16	16	14.3%
Miles	39,625	38,815	39,017	(1.5%)
Buses	4	4	4	0.0%
Total Operational Cost	\$ 137,339	\$ 142,232	\$ 163,773	19.2%
Operational Cost Per Mile	\$ 3.47	\$ 3.66	\$ 4.20	21.1%
Per student Cost	\$ 9,810	\$ 8,890	\$ 10,236	4.3%

Source: VDOE 2012-13 Student Transportation Report.

Transportation expenditures for the division exceed \$2 million each year and for 2013-14 are budgeted at just over \$2.5 million. **Exhibit 7.3** presents the budget by expenditure classifications. Operative salaries and wages, which are bus driver salaries, are the highest expense and account for 37.4 percent of total expenditures. The second highest expense is vehicle and equipment fuel which accounts for 18.6 percent of total expenditures.

Exhibit 7.3
FCPS transportation budget 2013-14

Expenditure	Vehicle Operations	Vehicle Maintenance	Total	% of Total
Administrative Salaries and Wages	\$ 62,189	\$ 64,578	\$ 126,767	5.0%
Operative Salaries and Wages	\$ 948,698		\$ 948,698	37.7%
Trade Salaries and Wages		132,798	132,798	5.3%
Substitute Salaries and Wages	\$ 94,000		\$ 94,000	3.7%
FICA Benefits	\$ 84,523	\$ 15,099	\$ 99,622	3.9%
VSRS Benefits	\$ 94,987	\$ 24,062	\$ 119,049	4.7%
HMP Benefits	\$ 215,405	\$ 21,107	\$ 236,512	9.4%
HMP Run Out	\$ 33,694	\$ 3,302	\$ 36,996	1.5%
GLI Benefits	\$ 10,196	\$ 2,349	\$ 12,545	0.5%
Unemployment	\$ 5,031	\$ 412	\$ 5,443	0.2%
Retiree Health Care Credit (RHCO)	\$ 1,026	\$ 717	\$ 1,743	0.1%
Purchased Services	\$ 5,000	\$ 10,000	\$ 15,000	0.6%
Towing		3,500	3,500	0.1%
Professional Development	\$ 175		\$ 175	0.0%
Meals/Refreshments	\$ 363		\$ 363	0.0%
Medical Service	\$ 16,000		\$ 16,000	0.6%
Transportation in Lieu of Bus	\$ 5,000		\$ 5,000	0.2%
Insurance	\$ 36,430		\$ 36,430	1.5%
Leases and Rentals				0.0%
Travel	\$ 350		\$ 350	0.0%
Materials and Supplies	\$ 1,300	\$ 571	\$ 1,871	0.1%
Vehicle/Powered Equip. Supplies		\$ 136,000	\$ 136,000	5.4%
Vehicle and Equipment Fuel	\$ 466,400		\$ 466,400	19%
Materials and Supplies		\$ 24,000	\$ 24,000	0.9%
Non-Capital Equipment	\$ 500		\$ 500	0.0%
Total	\$ 2,081,267	\$ 438,495	\$ 2,519,762	100.0%

Source: FCPS Finance Department, 2013-14 Budget Detail.

In total, the consulting team gave seven commendations in this chapter:

- The division has a schedule for 30-day bus inspections and placing reminder cards on all bus dash boards.
- The FCPS bus driver carpool that saves bus miles and fuel.
- The division requires a documented transportation plan for all students who ride buses.
- The FCPS transportation department maintains sufficient internal desk procedures that enable new employees to begin performing assigned duties with little difficulty.
- The division is beginning to use the automated bus routing software.
- The division has organized and orderly bus boarding.
- FCPS has a clean, organized, and well maintained bus repair shop.

The consulting team also made 12 recommendations in this chapter:

- Change bus driver pay from a daily/per route basis to an hourly basis and develop an hourly salary scale.

- Develop performance measures and benchmarks for transportation operations and use results to identify where improvements should be made.
- Improve communications between the transportation supervisor and those preparing IEPs when those IEPs have irregular transportation needs.
- Consolidate transportation operations by transferring the bus shop supervisor under the management of the transportation supervisor.
- Include in the Parent Resource Guide the responsibilities of parents who require a parent/guardian to be present before their child can be dropped off and actions that will be taken for repeated noncompliance.
- Complete a bus driver handbook and train staff.
- Develop written guidelines for reimbursement of extracurricular bus trips, document and communicate the amount of costs that should be reimbursed, and ensure reimbursements are processed.
- Implement formal criteria for determining whether a park-out is beneficial to the division.
- Explore working with the county to more fully implement automated bus routing software.
- Adjust bell times and establish dual routes for school buses.
- Develop online training capabilities for bus drivers and substitute drivers to supplement and enhance existing face-to-face training.
- Develop a bus replacement policy and identify funding needs for budget planning.

The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal impacts for those recommendations are not shown here.

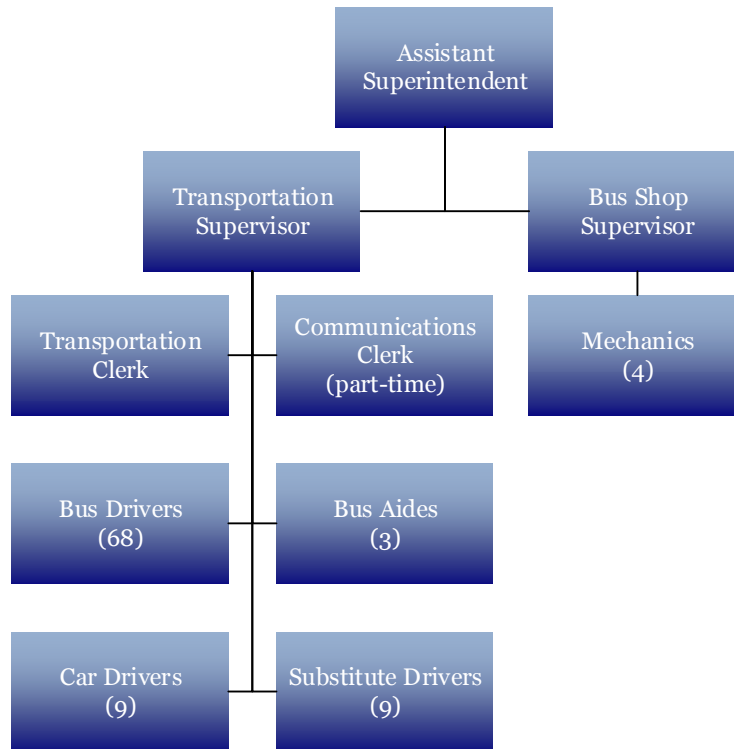
Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
7.3	Change bus driver pay from a per route basis to an hourly basis.	\$0	\$304,146	\$304,146	\$304,146	\$304,146	\$304,146	\$1,520,730
7.11	Develop extracurricular guidelines.	\$0	\$14,130	\$14,130	\$14,130	\$14,130	\$14,130	\$70,650
7.14	Work with county to fully implement routing software.	\$0	\$210,000	\$210,000	\$210,000	\$210,000	\$210,000	\$1,050,000
7.15	Adjust bell times and dual route buses.	\$0	\$84,111	\$84,111	\$84,111	\$84,111	\$84,111	\$420,555
7.19	Develop bus replacement policy.	\$0	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)	(\$2,217,125)

A. Organization and Staffing

The manner in which a transportation department is organized and staffed can and will have a direct impact on the effectiveness and efficiency of the operation and its ability to meet goals and responsibilities. Establishing and reviewing action plans, training employees, and adopting new methods and technologies are part of the ongoing efforts required for a transportation department to be efficient and successful.

The division's transportation operations are split between the transportation supervisor and the bus shop supervisor. Both supervisors report to the assistant superintendent. **Exhibit 7.4** presents the organization chart for the division's transportation department. The bus supervisor is responsible for managing all of the division's transportation functions except for repair and maintenance of the vehicle fleet. She is supported by a transportation clerk, a part-time communications clerk, 68 bus drivers, nine car drivers, and three bus aides. In addition, there are substitute bus and car drivers. The bus shop supervisor is responsible for the maintenance and repair of the vehicle fleet and is assisted by four mechanics.

**Exhibit 7.4
Transportation organizational structure**



Source: FCPS transportation, 2014.

FINDING 7.1

Schedules for required 30-day inspections are prepared at the beginning of the year for all buses and cars used to transport division students. The bus shop supervisor prepares the schedule for inspections, which begins in August and ends in May. The transportation supervisor takes the schedule and prepares a card that is placed on the dash for each vehicle showing when it is to receive service. The schedule and cards help ensure buses and cars receive their required inspections and also help drivers plan for taking their assigned vehicles to the bus shop for the inspection.

COMMENDATION

The division has a schedule for 30-day bus inspections and placing reminder cards on all bus dash boards.

FINDING 7.2

Bus drivers who take buses home overnight are provided the use of a vehicle on a carpool basis to return home between driving morning and afternoon bus routes. The drivers complete their morning routes and then park their buses at the bus shop after the morning run and carpool home. In the afternoons they carpool back and pick up their buses for the afternoon transport. The arrangement saves bus miles and fuel. The cost savings has been estimated by the division to be approximately \$20,000 annually.

COMMENDATION

FCPS has a bus driver carpool that saves bus miles and fuel.

FINDING 7.3

Bus drivers are paid on a daily basis without regard to the amount of time it takes to drive routes. Fifteen individual routes take less than one hour to drive. Drivers with less than five years of experience are paid \$71.05 for two routes (a morning and an afternoon route). Also, all drivers are considered full-time employees and receive full benefits if they desire. Of the 68 drivers, 48 currently receive FCPS health insurance benefits.

The division has a salary scale for drivers based on years of service. The scale begins with new drivers and drivers with less than five years being paid \$71.05 for the combined morning and afternoon routes. If a driver only drives one route during a day they are paid one-half the scale rate. Drivers with over 29 years of service are paid \$89.14 for the two daily routes. When a driver or bus is not available, students are split up and added to buses that travel a nearby route. The drivers of the buses are paid additional for the extra students placed on their bus. Normally half of the students are placed on one bus and the other half on another bus and the drivers are compensated with an additional one-half of their daily rate.

Although the division has 65 regular routes and three special needs routes, data contained in human resources information have only 64 employees classified as bus drivers. **Exhibit 7.5** presents a summary of bus driver salaries. Almost half, 29, of the 64 drivers have less than five years with the division. The total daily cost for the 64 drivers is \$4,900 and the average rate for drivers is \$76.57.

Exhibit 7.5
Summary – bus driver salary

Bus Driver's Salary Scale		Number of Drivers	Daily Salaries for Drivers
Years of Service	Pay Rate for Combined a.m. and p.m. Route		
0 - 5	\$ 71.05	29	\$ 2,060
6	\$ 72.74	2	\$ 146
7	\$ 75.88	2	\$ 152
8 - 9	\$ 78.25	6	\$ 470
10 - 13	\$ 79.26	7	\$ 555
14 - 16	\$ 81.19	8	\$ 650
17 - 18	\$ 83.72	1	\$ 84
19 - 21	\$ 84.51	1	\$ 85
22 - 23	\$ 85.80	3	\$ 257
24 - 28	\$ 87.89	2	\$ 176
29+	\$ 89.14	3	\$ 267
Total Daily Salaries for 64 Routes			\$ 4,900
Average Route Rate for Drivers			\$ 76.57

Source: FCPS human resources and Prismatic calculations.

Virginia school divisions base their compensation to bus drivers on different criteria. **Exhibit 7.6** presents a comparison of the way bus drivers in the peer school divisions are compensated and the compensation rates. The school divisions of Green and Warren Counties compensate drivers based on an annual salary, King George and Louisa Counties based on hourly rates, and Orange County on an amount per route dependent on the miles for that route. Madison County data were not available.

**Exhibit 7.6
Comparison of bus driver’s compensation**

Division	Pay Based On	Scale		Amount	
		Lowest	Highest	Lowest	Highest
Fluvanna	Per Route	0 to 5	29+	\$ 71	\$ 89
Greene	Annual Salary	Step 0	Step 30+	\$ 8,545	\$ 13,006
King George	Hourly	Step 1	Step 31	\$ 11	\$ 20
Louisa	Hourly	A	T	\$ 13	\$ 25
Orange	Per route based on Route Miles	25 miles or less	101.1 miles or more	\$ 53	\$ 75
Warren	Annual Salary	Step 1	Step 23+	\$ 10,363	\$ 15,194

Source: Division websites and FCPS transportation, 2014.

Exhibit 7.7 lists the 68 (65 regular and three special needs) routes showing the drive time for each route, plus 30 minutes for fueling, cleaning the bus, and pre-/post-inspections. The exhibit also shows a calculated hourly rate for the drivers of the routes based on the time associated with the route multiplied by the average rate for a route of \$76.57. The highest compensated driver of one of the shortest routes is paid an equivalent hourly rate of \$45.85 while the lowest compensated driver of one of the longer routes including deadhead miles is \$17.02. There are 16 drivers compensated at equivalent hourly rates of over \$30.00 an hour and another 38 over \$20.00 an hour.

Exhibit 7.7
Converted route rates to hourly rates

Driver	Drive Time Per Dual Route Including 30 Minutes and Deadhead (Hours)	Actual Hourly Rate for Routes Based on Average Salary of \$77 for a Dual Route	Hourly Rate Ranges
1	1.7	\$ 46	16 Over \$30 Per Hour
2	1.9	\$ 39	
3	1.9	\$ 39	
4	1.9	\$ 39	
5	2.0	\$ 38	
6	2.0	\$ 38	
7	2.1	\$ 37	
8	2.1	\$ 37	
9	2.1	\$ 37	
10	2.2	\$ 35	
11	2.2	\$ 35	
12	2.2	\$ 35	
13	2.2	\$ 35	
14	2.4	\$ 32	
15	2.5	\$ 31	
16	2.5	\$ 30	
17	2.6	\$ 30	5 over \$25 Per Hour
18	2.7	\$ 29	
19	2.8	\$ 28	
20	2.9	\$ 27	
21	3.0	\$ 26	
22	3.1	\$ 25	
23	3.1	\$ 25	
24	3.2	\$ 24	
25	3.2	\$ 24	
26	3.2	\$ 24	
27	3.2	\$ 24	
28	3.3	\$ 23	
29	3.3	\$ 23	
30	3.3	\$ 23	
31	3.4	\$ 23	
32	3.4	\$ 23	
33	3.4	\$ 22	
34	3.5	\$ 22	

Source: FCPS transportation department and Prismatic calculations, 2014.

Exhibit 7.7
Converted route rates to hourly rates (continued)

Driver	Drive Time Per Dual Route Including 30 Minutes and Deadhead (Hours)	Actual Hourly Rate for Routes Based on Average Salary of \$77 for a Dual Route	Hourly Rate Ranges
35	3.5	\$ 22	33 Over \$20 Per Hour
36	3.5	\$ 22	
37	3.5	\$ 22	
38	3.5	\$ 22	
39	3.5	\$ 22	
40	3.5	\$ 22	
41	3.5	\$ 22	
42	3.6	\$ 22	
43	3.6	\$ 21	
44	3.6	\$ 21	
45	3.7	\$ 21	
46	3.7	\$ 21	
47	3.7	\$ 21	
48	3.7	\$ 21	
49	3.7	\$ 21	
50	3.7	\$ 21	
51	3.8	\$ 20	
52	3.8	\$ 20	
53	3.8	\$ 20	
54	3.8	\$ 20	
55	3.9	\$ 20	14 Under \$20 Per Hour
56	3.9	\$ 20	
57	3.9	\$ 20	
58	3.9	\$ 20	
59	3.9	\$ 20	
60	4.1	\$ 19	
61	4.1	\$ 19	
62	4.1	\$ 19	
63	4.1	\$ 19	
64	4.2	\$ 18	
65	4.2	\$ 18	
66	4.2	\$ 18	
67	4.3	\$ 18	
68	4.5	\$ 17	

Source: FCPS transportation department and Prismatic, 2014.

A number of bus drivers are also employed in other departments within the division. There are a total of 23 bus drivers that work in other departments; 12 are cafeteria workers, 10 are teachers, and one is a teacher's aide.

Driver wages account for approximately 45.6 percent of the total cost of vehicle operations and 37.7 of total transportation costs. One cause of high transportation operating costs is wages that are higher than necessary. The division's operational cost per mile of \$3.34 in

2012-13 was 29.7 percent higher than the \$2.35 average for the cluster peer average and the per student cost of \$659 was 24.4 percent higher than the cluster peer average.

RECOMMENDATION 7.3

Change bus driver pay from a daily/per route basis to an hourly basis and develop an hourly salary scale.

Based on the hourly wages paid by the peer divisions King George and Louisa Counties, hourly rates should start at about \$12.50 per hour and end at about \$22.00, which is the average for the two divisions. According to the U.S. Bureau of Labor Statistics, school bus drivers earned a median hourly wage of \$13.50 per hour in May of 2012, with the lowest 10 percent earning \$8.47 or less per hour and the highest 10 percent earning \$20.94 or more per hour.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on the reduction paid to bus drivers when pay is changed from a daily/per route to an hourly rate. The calculated total expenditure for bus driver pay currently is \$942,424 (68 routes x \$76.57 per route x 181 days). The calculated estimated amount of bus driver expense when changed to an hourly rate with an estimated average pay of \$16 an hour would be \$638,278 (68 routes x 220.4 hours per daily drive time x 181 days). Savings are estimated to be \$304,146 per year (\$942,424 bus driver expense based on per route minus \$638,278 expense based on hourly rate).

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Change bus driver pay from a per route basis to an hourly basis.	\$304,146	\$304,146	\$304,146	\$304,146	\$304,146

FINDING 7.4

The FCPS transportation department has not established performance measures. The department does not compare FCPS performance against established benchmarks or peer divisions. The transportation department also does not use benchmarks to gauge performance and identify areas of improvement.

A performance measurement system identifies a series of measurable goals and objectives. A desired goal or benchmark is established for each measurement based on peer division data. The division then documents its data and compares it to the benchmarks.

The process of continual improvement requires use of benchmarks. **Exhibit 7.8** provides some examples of transportation benchmarks used in other divisions. The state reports could also provide a useful starting point for developing ideas for operational improvements.

Exhibit 7.8
Suggested transportation industry benchmarks

Benchmark	Measure
Preventable Accidents	1 : 100,000 miles
On-Time Performance	99.5% (includes all services)
Routing Utilization Efficiency	80% of available time or available capacity
Runs per Bus (a.m.)	2.3 – 2.5 (triple tiered system) 1.6 – 1.9 (double tiered system)
Bus to Mechanic Ratio	25 – 30 : 1 (depends on fleet type and age)
Spare Bus Ratio	12 – 15% (depends on fleet mix and trip volume)
Driver Turnover Rate	< 15%
Parts Cost per Mile (no labor)	\$.16 – \$.18 (depends on fleet type and age)
Maintenance Cost per Mile (parts, supplies and labor)	\$.39 – \$.43 (depends on fleet type and age - assumes 13,000 miles per bus per year)
Fleet MPG	6.0 – 7.0 (depends on fleet mix, type, age)
Driver Labor % of Operating Costs	39 – 43% (benefits and work comp excluded)
Total Labor % of Operating Costs	54 – 61% (benefits and work comp excluded)
Insurance and Risk % of Cost	5 – 10% (excluding workers compensation)
Annual Cost per Bus Operated	\$30,000 – \$50,000 per bus (no capital cost)
Special Education Services	
-% of Pupils Transported	5-10%
-% of Service Time	20-40%
-% of Total System Costs	30-50%
Fleet Useful Life	10,000 – 15,000 miles per year – 180,000 max. 10-12 years (spares 11-13 years)

Source: Prismatic, December 2013.

RECOMMENDATION 7.4

Develop performance measures and benchmarks for transportation operations and use results to identify where improvements should be made.

The division should analyze both year-over-year data and cluster/peer data to assess its performance and identify areas for future improvements. It should also include any or all of the suggested transportation industry benchmarks.

FISCAL IMPACT

The consulting team estimates the transportation supervisor will need to spend a week or more developing performance measures and benchmarks to be use and then identifying the data sources for each. Once developed, analyzing division performance in comparison to them should be part of the transportation supervisor’s routine work responsibilities.

FINDING 7.5

The transportation supervisor is not always invited to IEP meetings.

Transportation needs for students are not always coordinated prior to finalizing the IEP. Although it was reported to the consulting team that the transportation supervisor is being invited to more IEP meetings than previously, she is not always involved in discussions regarding special education transportation needs as IEPs are being developed.

Many times special education transportation requirements are passed to the transportation department after the IEP has been finalized. This creates a cost center over which the transportation supervisor has had no input.

As shown in **Exhibit 7.9**, the transportation of special education students is not only costly, it is also increasing each year. These figures do not include the costs for transporting special education students in cars, only for transporting them on special education buses.

Exhibit 7.9
Recent trend in exclusive transportation costs

Item	2010-11	2011-12	2012-13	% Change
Students Transported	14	16	16	14%
Route Miles	39,625	38,815	39,017	(2%)
Buses	4	4	4	0%
Total Operational Cost	\$ 137,229	\$ 142,232	\$ 163,773	19%
Operational Cost per Mile	\$ 3.46	\$ 3.66	\$ 4.20	21%
Operational Cost per Student	\$ 9,810	\$ 8,889	\$ 10,236	4%

Source: VDOE Pupil Transportation Report, 2012-13.

Depending on the student's needs, FCPS transportation can be provided in a number of ways:

- The student can be assigned to an existing special education or regular route.
- The student's parents can be offered a mileage reimbursement if they provide transportation themselves.
- The division can provide transportation in a division-owned car.

The most expensive of these options is the last. FCPS' per student cost of transporting special needs students is 18.3 percent higher than the cluster average of similar divisions as reported by the VDOE.

RECOMMENDATION 7.5

Improve communications between the transportation supervisor and those preparing IEPs when those IEPs have irregular transportation needs.

At a minimum, the special education department should meet with transportation department staff to better understand the costs of transportation cost drivers of various IEP options. The finance department should develop a report to assist both departments in tracking the expenses associated with providing car transportation. The finance director should investigate use of *IDEA* funds to support transportation expenses of students beyond what is normally paid for regular transportation.

If further research indicates that state law would allow the division to offer parents some form of a stipend to provide transportation for their own child and that would be less expensive than division-provided transportation, the division should develop appropriate contract documents for use in IEP meetings.

FISCAL IMPACT

This recommendation will require minimal staff time to implement.

FINDING 7.6

The bus shop function is not properly aligned on the current organizational chart. With most vehicles in FCPS being school buses, the current organization chart placing vehicle maintenance under the assistant superintendent is inefficient. School bus maintenance requires the bus repair shop personnel to work closely with the transportation supervisor.

Efficient school divisions are organized with common functions consolidated in the same department. A consolidated management structure is normally more effective than one where functions that are interrelated are under separate management. Bus operations and bus maintenance operations must be closely coordinated in order for the total transportation operations to be efficient and effective.

RECOMMENDATION 7.6

Consolidate transportation operations by transferring the bus shop supervisor under the management of the transportation supervisor.

This organizational change will free the assistant superintendent to focus on other priorities. It will also contribute to greater transportation organizational efficiency.

FISCAL IMPACT

This recommendation requires only a change in reporting relationships and has no fiscal impact.

B. Planning, Policies, and Procedures

Policies and related procedures document the operating processes and practices for a school division's transportation department. They describe what services are to be provided, who is eligible to receive them, and how they are to be delivered. Policies must adhere to statutory requirements governing the delivery of transportation services for all school divisions. They must also reflect the policy goals and objectives of the individual division's school board.

Since statutory requirements must be met, they should be incorporated by reference into division policies. Administrative procedures support and enhance a division's policies by describing how policy will be implemented.

FINDING 7.7

A transportation plan is required to be completed for every student that is transported on FCPS school buses or cars. The plan includes information as to:

- what bus the student will ride in the morning and afternoon;
- where the student will be dropped off and picked up;

- whether a caretaker has to be present before the student can be dropped off;
- if the student will go to extended care;
- approval for attending field trips; and
- inclement weather provisions, including whether the student is to ride the bus or will be picked up

COMMENDATION

The division requires a documented transportation plan for all students who ride buses.

FINDING 7.8

The transportation department has internal desk procedures that cover the duties performed by the transportation clerk. The previous individual who held the transportation clerk position left employment prior to the current employee being employed. Sufficient written procedures were available that enabled the new transportation clerk to complete her assigned duties with little difficulty.

Desk procedures are very important and become valuable when a new employee is hired and needs instruction on how to complete required tasks. Many times, without written desk procedures, new employees struggle and are inefficient for a lengthy amount of time.

COMMENDATION

The FCPS transportation department maintains sufficient internal desk procedures that enable new employees to begin performing assigned duties with little difficulty.

FINDING 7.9

The transportation plan prepared for each student that is transported on division buses stipulates as to whether a student can or cannot be dropped off during the afternoon run without a guardian present. Transportation staff reports that parents who require a guardian to be present before their child can be left at the bus drop-off are frequently not present when the bus arrives.

When a guardian is not present, the bus driver attempts to contact the parent/guardian before leaving the bus stop. If the driver cannot contact the parent/guardian, the child is transported back to their school. Administrative staff at the school continues attempting to contact the parents until arrangements are made for the child to be picked up.

Additional time and cost are required to return the student to their school and additional time and effort is required by school staff. The division has not attempted to take action when parents/guardians are repeatedly not present. The Parent Resource Guide does not discuss the problems created when parents are not present and what actions may be taken from repeated occurrences.

RECOMMENDATION 7.9

Include in the Parent Resource Guide the responsibilities of parents who require a parent/guardian to be present before their child can be dropped off and actions that will be taken for repeated noncompliance.

For repeated offenses, the division should consider a suspension of bus service for the student for a short period of time. This would require the parent to provide his/her own transportation.

FISCAL IMPACT

Including information in the Parent Resource Guide can be done at no cost to the division.

FINDING 7.10

The division does not have a driver's handbook for school bus drivers. Except for limited individual written procedures, bus drivers are provided only verbal information pertaining to management's expectations. This can lead to situations where drivers may perform their duties in an unacceptable manner because they are not aware of acceptable processes and management's expectations. Most employees want to know what is expected of them and they want to know where to turn for answers to questions.

Handbooks can contain a variety of items and topics to provide bus drivers with a clear understanding of what is expected and how and when to perform various duties. Topics that are routinely included in bus driver handbooks include:

- accident procedure;
- breakdowns;
- cell phone use;
- child abuse;
- diesel engine starting;
- dress code;
- emergency telephone numbers;
- evacuation policy and procedures;
- fueling;
- housekeeping and maintenance policies;
- illness of driver;
- inspection of the bus;
- keys;
- lens covers;
- maintenance policies;
- parent responsibilities ;
- personnel policies and procedures;

- route change;
- school bus daily student check sheet;
- smoking; and
- timesheet completion.

Typically, handbooks contain sample forms that are to be used to document the various duties and functions. There are also instructions as to how to access electronic documents and how they are to be completed.

Normally, handbooks also contain a declaration page for the driver to sign and date. The declaration page usually states that the driver has received the handbook, understands that it supersedes all previous handbooks or instructions, and indicates that violation of the policies and procedures is subject to disciplinary action up to and including termination of employment.

RECOMMENDATION 7.10

Complete a bus driver handbook and train staff.

The transportation supervisor has begun work on the development of a driver's handbook and has a copy of a handbook from another Virginia school division to use as a starting point. The division should anticipate the completion of the handbook for use in the 2014-15 school year.

FISCAL IMPACT

The consulting team estimates that the transportation supervisor can complete the handbook with one week's work. Training for bus drivers is already regularly scheduled in the division, so training staff on the handbook can be done at no additional cost.

FINDING 7.11

There is confusion pertaining to reimbursement of transportation costs associated with extracurricular field trips. Although there are not any written guidelines, it is the understanding of finance, transportation, and school staff that transportation costs for extracurricular field trips are intended to be reimbursed to the general fund by the requesting school.

The consulting team found that invoices for extracurricular trips are not always prepared documenting bus usage cost for which the general fund is to be reimbursed. Trips requiring paid drivers are processed timely, but athletic trips where an employee drives the bus as part of their assigned duties are not being processed timely.

Extracurricular bus transportation requiring paid bus drivers is coordinated by the transportation department. The coordination includes assigning a specific bus and a bus driver for the trip. Once the trip is completed, the responsible school completes a purchase order identifying the miles driven on the trip, the bus driver assigned, and the hours the bus driver worked. Bus drivers are paid \$10 an hour. Reimbursement for bus mileage for non-athletic trips is calculated at \$0.80 per mile and for athletic trips is supposed to be calculated at \$0.40 a mile, as instructed verbally by the central office.

Invoices for non-athletic trips are processed timely since bus drivers want to get paid for their work and finance will not process the pay until the invoice along with the activity fund check is received. However, invoices for athletic trips where an athletic staff member drives a bus and is not compensated extra for driving the bus have not been prepared for 2013-14.

School bookkeepers prepare purchase orders for extracurricular trips for their schools, except for athletic trips. At the time of the consulting team’s fieldwork, purchase orders or invoices for athletic trips had not been prepared. The transportation department was beginning to obtain documentation for athletic trips taken and planning to prepare the needed purchase orders or invoices.

Written guidelines are needed for extracurricular trip reimbursements to help ensure reimbursements are received timely and for the correct amounts. Guidelines should not only discuss the processes but also explain the rationale for the amounts to be reimbursed such as the difference in the bus mileage rates between athletic and non-athletic trips.

RECOMMENDATION 7.11

Develop written guidelines for reimbursement of extracurricular bus trips, document and communicate the amount of costs that should be reimbursed, and ensure reimbursements are processed.

The reimbursement rate for bus usage for extracurricular bus trips should be calculated so that division management and the board understand what cost the rate is to recovery. If the division decides to continue to use the \$0.80 per mile for non-athletic trips and the \$0.40 for athletic trips, calculations, and documentation should be prepared to justify the difference. However, the division should consider the actual cost of operating a school bus, including fuel, maintenance, and depreciation. The written guidelines could become part of the financial management handbook.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on data the transportation department had obtained at the time of consulting team’s fieldwork. For the first half of 2013-14, a total of \$7,065 was in process of being invoiced for athletic bus trips. Assuming the same level of trips during the second half of the year and using the \$0.40 a mile the total amount that would be reimbursed to the general fund for the year would be \$14,130.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop guidelines for extracurricular bus trip reimbursements, document reimbursement costs, and ensure reimbursement processing.	\$14,130	\$14,130	\$14,130	\$14,130	\$14,130

FINDING 7.12

The school division does not have formal guidelines for taking buses home, termed “Park-Out,” to help ensure that costs and risks are kept to a minimum.

While this is a common practice it is difficult to manage and creates opportunity for abuse.

The transportation facility is located at the back of the middle school and the bus shop is located in a separate building a short distance from Carysbrook Elementary. Neither of the facilities is capable of housing the full bus fleet on site. Some buses are parked at the high school and other school locations. Therefore, drivers are allowed to keep buses at home if they desire; making it a convenience to the driver and benefit to the operation.

Generally, park-outs make sense when the driver lives very near the area he/she is serving, and/or the route starts in a remote area. The overall goal of park-outs should be to minimize total cost. Park-out procedures would itemize the criteria for drivers who wish to participate and normally require all items to be met. Eligible criteria normally includes:

- Park-Outs will be authorized providing that the distance from the driver’s home is less distance (actual road miles) to the first pick up and last drop compared to the distance (actual road miles) from the assigned bus lot to the student’s address.
- School division vehicles must be in a safe and secure location.
- Drivers must make positive, on-time contact with dispatch upon completion of pre-trip inspection, both a.m. and p.m.
- Vehicle keys will not be stored in the bus. Replacement keys will cost \$25.
- School division vehicles must be parked in a location that does not violate any city, county, or homeowners association ordinances.
- All compartments of the school division vehicle must be accessible to school division mechanics and/or contracted service technicians, i.e. the battery compartment.
- Drivers who violate the policy will have their park-out privilege revoked.
- Engine idling/warm up time will be limited to five minutes unless instructed to do otherwise by the transportation department. Vehicle must be attended during periods of idling.
- Routes that require wheel chair lift equipped buses or other special needs equipment are not eligible for park-outs.
- School division vehicles will not be used as a private “for hire” vehicle or for personal use.

RECOMMENDATION 7.12

Implement formal criteria for determining whether a park-out is beneficial to the division.

The transportation supervisor should draft FCPS eligibility criteria for superintendent approval. Then, the supervisor should review all current park-outs for compliance, particularly the mileage criteria, as minimizing mileage will reduce fuel expenses.

FISCAL IMPACT

This recommendation can be implemented by the transportation supervisor with minimal time and cost.

C. Routing and Scheduling

The routing and scheduling of school buses is the primary function that determines the overall efficiency and effectiveness of a transportation operation. The routing process determines the total number of routes, which in combination with scheduling of bell times for the various schools dictates the total number of buses required.

Some of the largest potential cost savings, or losses, in student transportation are realized with quality routing. Optimized routes minimize student ride time and decrease the total number of buses needed to transport student populations. The better the school division routes and schedules, the more efficient it becomes. A division should attempt to fill each school bus as close as possible to its capacity, and to reuse each bus as many times as possible over the course of the school day.

FINDING 7.13

Shortly after being hired by the division, the transportation supervisor began training on the division's bus routing software and started using the software to design bus routes. Prior to the transportation supervisor being hired three years ago, routes were developed manually. Staff reported that during that time routes were changed little.

COMMENDATION

The division is beginning to use the automated bus routing software.

FINDING 7.14

Although the transportation supervisor uses a bus routing software, Transfinder, routes seem to be inefficient and costly. Since bus routing is performed prior to the beginning of school, the consulting team was unable to observe the actual design of bus routes.

The division operates a total of 68 bus routes each day. Twenty-five routes are for elementary and middle school students, 25 are for high school students, and three are special education routes.

A high per rider cost is a good indicator that routes are probably inefficient. The division's per student cost for 2012-13 was \$659 as compared to the peer cluster cost of \$492, 24.4 percent higher. Another indicator of inefficient routes is the average utilized capacity of buses. For the 65 regular routes run by the division the total capacity of the buses used is 4,689 seats. The number of pupils for 2012-13 is 3,094, and when divided by the total capacity of 4,689 reflects a utilization of capacity of 66 percent. Utilization below 75 percent is considered inefficient. Most divisions do not consider the manufacturer's rated seating capacity to be the true capacity. For example a 77-seat bus only seats 77 if students sit three

to a seat, which is not comfortable (or even possible) with larger high school students. However, FCPS has not yet adopted its own guidelines regarding “actual” seating capacity.

The consulting team found the following items:

- Maximizing bus route efficiency minimizes the number of buses needed to transport students. With each route that is removed, all of the associated operating costs are also eliminated, including salaries and equipment, fuel, insurance, and maintenance costs.
- Fluvanna County has some geographic information systems (GIS) capabilities. Effective bus routing requires two main components: GIS and student address data. Both components must be up to date and supported by knowledgeable personnel. In the experience of the consulting team, most school division attempts at automated routing fail because their transportation departments lack the requisite skills to handle GIS and lack the time to become expert in it.

RECOMMENDATION 7.14

Explore working with the county to more fully implement automated bus routing software.

The county already has some GIS capabilities. Ideally, regular and special education routing would be a dynamic exercise, with route adjustments made as individual families move into and out of school attendance areas. However, FCPS would likely realize significant gains in routing efficiency just by having county staff assist in developing new routes at the beginning of each school year, based on the existing enrollment data, with perhaps an adjustment at the winter break.

As part of the process, the transportation supervisor should involve the bus drivers in route planning. Drivers observe the movement of other buses when they are driving their routes and notice situations which could improve route efficiencies. Their input to the process would be valuable.

In addition, the division and transportation supervisor should address these issues in bus routing:

- adopting division guidelines regarding the effective capacity of each bus, by grade level;
- considering whether to formalize the division’s current informal policy of not having any student pick-ups earlier than 6:30 a.m.; and
- considering reasonable expectations for how long some rural roads take for a bus to traverse them.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on establishing more efficient bus routes that would reduce the number of routes. Reducing the number of routes would reduce the number of buses and associated cost. Reducing the number of buses while transporting the same number of students would increase the utilization of buses. Increasing the average utilization of buses to 75 percent will reduce the need for seven buses. The 2013-14 budget for transportation is \$2.5 million and with 68 routes the average cost per route is \$37,055. Using a conservative \$30,000 per route that takes into account administrative and

trade salaries not being included in the total budget, and realizing that redesigned routes may not reduce fuel costs, the annual cost savings is estimated to be \$210,000.

Additionally, reducing the number of buses needed will also reduce the need to purchase as many new replacement buses in future years. The purchase of a minimum of one less bus at an estimated annual cost of \$84,775 will be avoided.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Continue to use automated bus routing software but analyze and customize routes as needed to be more efficient.	\$210,000	\$210,000	\$210,000	\$210,000	\$210,000

FINDING 7.15

All buses run only a single route in the morning and a single route in the afternoon. The division does not have any buses that run dual routes.

The routing/scheduling function is the primary component in determining the effectiveness of a transportation system. Routing determines the total number of routes, which in combination with scheduling of bell times for schools, dictates the total number of buses required. The total number of bus routes drives nearly every expense associated with transportation. The better the division routes and schedules in the system, the more efficient it becomes.

Exhibit 7.10 shows a summary of the routes broken down by route times. Fourteen (14) high school routes are less than 60 minutes and 29 elementary routes take over 90 minutes. The route times shown include the actual drive times and do not include the 30 minutes per day allowed for non-driving duties.

**Exhibit 7.10
Summary of bus routes**

Route Times (Minutes)	Elementary Routes	High School Routes	Special Education Routes
Less than 60	1	14	-
60 to 75	1	5	-
75 to 90	9	4	1
Over 90	29	2	2
Totals	40	25	3

Source: FCPS Transportation Department and Prismatic calculations, 2014.

Staggered bell times allow a transportation department to include multiple runs for each bus, reducing the requirements for school buses and drivers. As a result of staggered bell times, transportation departments can schedule some regular buses for double runs and sometimes triple runs. **Exhibit 7.11** shows the current beginning and ending bell times for each of the division’s five schools.



**Exhibit 7.11
School bell times**

School	Starting Time	Ending Time
Carysbrook Elementary	8:15 a.m.	3:00 p.m.
Central Elementary	8:30 a.m.	3:15 p.m.
West Central Elementary	8:30 a.m.	3:15 p.m.
Middle School	8:15 a.m.	3:00 p.m.
High School	8:45 a.m.	3:30 p.m.

Source: FCPS Transportation Department, January 2014.

RECOMMENDATION 7.15

Adjust bell times and establish dual routes for school buses.

Slight adjustments to bell times will allow for a minimum of 15 buses to run dual routes both in the mornings and afternoons. The transportation supervisor should propose an adjustment to bell times for superintendent and board consideration.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on adjusting bell times to allow a minimum of 15 buses to run dual routes. Taking 15 buses out of the fleet will reduce the maintenance cost to keep them operational, which is approximately \$37,500 a year for non-salary items (15 buses x \$2,500 a year for non-salary maintenance costs). Reducing the bus fleet by 15 will reduce the need for a bus mechanic, saving approximately \$46,611 for salary and related fringe benefit costs (\$33,199 average salary for a bus mechanic + \$13,412 for related benefit costs). Total annual savings will be \$84,111 a year (\$37,500 maintenance cost reduction + \$46,611 salary and fringe benefits for one bus mechanic).

In addition to the annual cost savings for maintenance for 15 buses, the division will reduce the need to acquire three buses a year during the next five years to bring the bus fleet to a 15-year replace cycle, an annual cost avoidance of \$254,325 (\$84,775 cost per bus x three buses).

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Adjust bell times and establish dual routes for school buses.	\$84,111	\$84,111	\$84,111	\$84,111	\$84,111

D. Training and Safety

Safe transportation operations should be a chief concern for any school division. Ensuring that safe operating practices are followed at all times, and that all bus operations personnel are properly and completely trained is a primary responsibility of department management. A successful safety program constantly reinforces proper procedures so that it becomes a constant reminder as employees execute their daily responsibilities. This begins with a strong initial training program, continues with regular in-service training, and is reinforced through the daily actions and activities of department managers and supervisors.



FINDING 7.16

Bus dismissal at schools is mostly organized and orderly. Buses line up in a precise order each day. Bus and car rider traffic is separated physically and by time. School staffs provide supervision during bus loading. Drivers tend to know their assigned riders well and tend to interact with students in a positive manner.

COMMENDATION

The division has organized and orderly bus boarding.

FINDING 7.17

There is little training provided to bus drivers or substitute drivers. New drivers are required to attend the normal 24 hours of training before they can drive a transportation assigned vehicle. Each year, drivers attend two training classes conducted by one of the division's three certified trainers that normally last between two and three hours. Bus aides can also attend this training.

Student transportation plays an important role in the educational process. Transporting children to and from school each day is a responsibility that requires good physical health, professionalism, emotional stamina, determination, dedication, and skill. The main objective of any student transportation system is to transport passengers to and from school each day safely and efficiently. To achieve this goal, drivers must be instructed thoroughly in the fundamentals and techniques of operating school buses.

Periodic training sessions are necessary to refresh drivers with information pertaining to safe operation of their bus and other issues pertaining to student transportation. There are a number of topics that provide drivers with training opportunities such as:

- safe braking practices and techniques;
- safe turning procedures for school bus drivers;
- backing up procedures for school bus drivers;
- defensive driving skills for school bus drivers;
- controlling new age bullying in schools;
- drug and alcohol awareness for school bus drivers;
- roles and responsibilities for school bus drivers;
- how to control extreme behavior on the school bus;
- how to control bullying on the school bus;
- violence prevention on the school bus;
- first aid training for school bus drivers;
- winter bus driving safety;
- school bus safety for students;
- kid's guide to school bus safety; and
- special needs bus driving: what you need to know.

RECOMMENDATION 7.17

Develop online training for bus drivers and substitute drivers to supplement and enhance existing face-to-face training.

The transportation supervisor should review and select online training options from any of the vendors who currently provide relevant content. Many of the available systems can provide the time spent in training in addition to certificates of completion. For drivers without adequate internet access at home, the division should make resources available in one of the school libraries.

FISCAL IMPACT

Depending on the online options selected, there may be a small cost associated with it. Some programs are available for only a few hundred dollars.

E. Vehicle Maintenance and Bus Replacement Schedules

A division's capital investments in its bus fleet and expenditures required for maintenance and operation are substantial. Vehicle maintenance, repair, and bus replacement are important components of any transportation operation. The services support the delivery of transportation services by ensuring the availability of a safe and reliable bus fleet.

FINDING 7.18

The bus repair facility is extremely clean, organized, and well maintained (Exhibit 7.12). Built in 1996, it is easy to tell that the supervisor takes pride in the condition of the shop. All maintenance and repairs except for major engine repairs can be done in the facility including tire changes. The parts area is also neat and organized (**Exhibit 7.13**). Used parts that have been taken off inoperable buses and automobiles are also neatly organized.

**Exhibit 7.12
Bus repair shop**



Source: Prismatic, January 2014.

**Exhibit 7.13
Bus shop parts storage**



Source: Prismatic, January 2014.

COMMENDATION

FCPS has a clean, organized, and well maintained bus repair shop.

FINDING 7.19

There is no bus replacement plan. The division's bus fleet is very aged with over 56 percent of the fleet approximately 15 years or older. Although the county has \$150,000 a year in its CIP for bus purchases, it will take a considerable investment to bring the bus fleet up to the VDOE recommendation of a 15-year replacement cycle. Few buses have been purchased in the last three years. In 2011-12 two used regular and one used special needs buses were purchased, in 2012-13 two buses were purchased, and in 2013-14 four buses were purchased.

Regular investment in bus fleet replacement is important to ensure the ongoing safety, reliability, and efficiency of transportation services. Older vehicles are less reliable, leading to an increase in breakdowns and service disruptions, as well as the need to retain a higher proportion of spare vehicles in the fleet to cover more frequent and longer maintenance and repair activities. Older vehicles also fail to take advantage of the latest improvements in vehicle technology for safety and environmental concerns. Older vehicles also become more costly to maintain.

The tradeoff between the capital expenditures required to purchase replacement buses and the ongoing operational costs of repair and maintenance favor the retention of a balanced aged fleet whereby the fleet is distributed evenly across the range of vehicle age. The VDOE recommends a 15-year replacement cycle. In order to sustain a 15-year replacement cycle, 7.5 years would be the expected average age of the fleet. The FCPS average of 14.2 years indicates a significant under-investment in bus replacements. **Exhibit 7.14** presents a listing of the division's 80 buses indicating the capacity, year, make, mileage and type of route the bus is assigned.

**Exhibit 7.14
School bus listing**

Bus Number	Capacity	Year	Make	Mileage	Type of Route
Regular Route Buses					
1	77	2005	IC	77,524	PK- 7
2	72	1999	Genesis	135,686	HS
4	64	1996	Ford/Thomas	173,800	HS
8	84	1999	Thomas	158,298	HS
9	64	1991	Ford/Thomas	211,770	HS
10	64	1997	Ford/Thomas	259,621	PK- 7
11	77	2014	Thomas	2,757	PK- 7
12	72	1999	Genesis	19,588	HS
13	78	2004	IC	126,538	HS
14	84	1999	Thomas	29,063	PK- 7
15	78	2002	Amtran RE	133,754	PK- 7
16	72	1999	Genesis	58,827	HS
17	78	2002	Thomas	107,443	PK- 7
18	64	1997	Ford/Thomas	227,245	PK- 7
19	78	2004	Thomas	107,611	PK- 7
20	64	1997	Ford/Thomas	150,400	HS
21	77	2006	IC	103,719	PK- 7
23	64	1996	Ford/Thomas	310,288	PK- 7
25	84	2005	Amtran RE	85,070	PK- 7
26	64	1995	Intern'l/Bluebird	200,690	HS
27	77	2005	IC	87,692	PK- 7
30	84	2004	Thomas	92,629	PK- 7
31	64	1990	Ford/Thomas	195,340	PK- 7
33	64	1991	Ford/Thomas	226,339	HS
34	64	1992	Ford/Bluebird	132,759	HS
35	77	2012	2012 IC	34,121	PK- 7
36	64	1997	Ford/Thomas	249,798	HS
38	78	2004	International	93,605	PK- 7
39	64	1997	Ford/Thomas	225,784	PK- 7
40	77	2008	IC	52,133	HS
41	84	1998	International	140,410	PK- 7
42	64	1997	Ford/Thomas	183,874	PK- 7
43	64	1996	Ford/Thomas	186,235	PK- 7
44	64	1997	Ford/Thomas	213,082	PK- 7
45	64	1995	GMC/Bluebird	248,926	PK- 7
47	64	1997	Ford/Thomas	203,350	PK- 7
48	64	1997	Ford/Thomas	180,140	PK- 7
49	64	1995	Ford/Thomas	203,118	HS
50	64	1996	Navistar/Thomas	230,041	PK- 7
51	64	1996	Navistar/Thomas	191,505	PK- 7
52	64	1996	Ford/Thomas	168,389	PK- 7
54	78	2000	Thomas	130,782	PK- 7
55	78	2000	Thomas	38,278	HS
56	77	2008	IC	75,875	HS
58	77	2006	IC	79,429	HS

**Exhibit 7.14 (continued)
School bus listing**

Bus Number	Capacity	Year	Make	Mileage	Type of Route
59	77	2009	IC	58,808	HS
60	77	2006	IC	94,681	PK- 7
61	78	2001	Thomas	153,435	HS
62	78	2001	Thomas	22,985	HS
63	64	1991	Ford/Thomas	138,500	PK- 7
65	77	2005	IC	95,709	PK- 7
66	77	2005	IC	157,383	HS
67	77	2009	IC	61,906	PK- 7
68	77	2006	IC	69,994	PK- 7
69	64	1995	Intern'l/Thomas	198,180	PK- 7
70	77	2008	IC	78,476	HS
71	77	2008	IC	79,581	PK- 7
73	78	1998	Thomas Mvper	160,484	PK- 7
75	77	2014	Thomas	7,529	HS
76	77	2014	Thomas	6,079	PK- 7
77	77	2014	Thomas	2,493	PK- 7
78	65	2014	Thomas	2,515	HS
79	65	2014	Thomas	1,328	HS
Regular Bus Spares					
Spare 22	64	1989	International	300,581	SPARE
Spare 13a	64	1990	Ford/Thomas	221,479	Athl/Spar
Spare 19a	64	1989	International	226,765	Athl/Spar
Spare 24	64	1991	Ford/Thomas	232,478	SPARE
Spare 28	64	1989	International	262,242	SPARE
Spare 29	64	1991	Ford/Thomas	205,159	SPARE
Spare 3	84	2000	Ford/Thomas	35,776	SPARE
Spare 30a	64	1991	Ford/Thomas	196,052	Athl/Spar
Spare 32	64	1989	International	286,238	SPARE
Spare 38a	64	1990	Ford/Thomas	200,052	Athl/Spar
Spare 6	64	1991	Ford/Thomas	280,093	SPARE
Spare 7	64	1996	Ford/Thomas	190,990	Athl/Spar
Special Education Buses					
SPED 57	8 w/3 ties	2001	GMC/Thomas	208,871	SPED
SPED 72	16W/4 TIES	2009	IC	93,306	SPED
SPED 74	10W/2 TIES	1998	Thomas Mvpef	163,898	SPED
Special Education Spares					
Spare S 46	42 w/3 ties	1995	GMC/Bluebird	183,306	SPARE
Spare S 5	8 w/3 ties	1997	GMC/Bluebird	238,399	SPARE

Source: Transportation department, 2014.

Exhibit 7.15 presents a summary of the division's bus fleet by age and mileage. Fifteen buses are over 20 years old and another 30 are between 15 and 20 years old. Only 35 or 43.8 percent, are less than 15 years old. Twenty-four buses have over 200,000 miles and another 17 have between 150,000 and 200,000 miles. Twenty-seven have less than 100,000 miles.

**Exhibit 7.15
Summary of bus fleet**

Buses By Age	Number of Buses	Percent of fleet
Less than 10 years	23	29%
10 to 15 years	12	15%
15 to 20 years	30	38%
Over 20 years	15	19%

Buses By Mileage	Number of Buses	Percent of fleet
Less than 50,000 miles	12	15.0
50,000 to 100,000 miles	17	21.2
100,000 to 150,000 miles	10	12.5
150,000 to 200,000 miles	17	21.3
Over 200,000 miles	24	30.0

Source: Transportation department and Prismatic calculations, 2014.

Bus replacement is one of the most important decisions a school division can make. FCPS' school bus fleet is aging, as purchases of needed buses have been postponed. Only a few buses have been replaced each year for the last several years due to a shortage of funding. Funding for bus replacement is not included in the school division's budget. Fluvanna County includes a limited amount of funds in its budget; currently the funding is \$150,000, although county officials acknowledge that the amount provided may be increased each year. An aging bus fleet becomes increasingly expensive to maintain, and creates higher risks associated with an older bus fleet.

RECOMMENDATION 7.19

Develop a bus replacement policy and identify funding needs for budget planning.

The division should consider developing a bus replacement plan that would replace at least seven buses a year during the next five years. Replacing the seven oldest buses each year during the next seven years would result in buses with ages as shown in **Exhibit 7.16**. Adherence to that schedule would result in a fleet with an average age of 6.9 years.

Exhibit 7.16
Age of buses after five years of replacing seven buses a year

Age of Buses in Years	Number of Buses
1	7
2	7
3	7
4	7
2	7
6	6
7	1
10	3
11	4
13	4
14	5
15	4
17	2
18	2

Source: Prismatic, 2014.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on the estimated cost to replace seven school buses each year for the next five years. Based on the average cost of two 66-passenger buses and two 77-passenger buses purchased in 2012-13 of \$84,775, the cost per year would be \$593,425. Considering the \$150,000 included in the county's CIP for bus replacement, an additional \$443,425 would be needed to fund the replacements. The additional funding is included in this fiscal impact.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop a bus replacement policy and identify funding needs for budget planning.	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)

This chapter provides commendations and recommendations related to nine aspects of technology management:

- A. Organization and Staffing
- B. Staff Development
- C. Instructional and Administrative Technology
- D. Technology Planning and Budgeting
- E. Technology Policies and Procedures
- F. Inventory Control
- G. Systems Infrastructure and Integration
- H. Technical Support and Help Desk Operations
- I. Technology Acquisition, Donation, and Surplus Practices

The use of technology has enabled school systems to enhance operational, instructional, and business efficiency and effectiveness. Technological advances in hardware and software, paired with decreasing hardware prices and a push towards one-to-one computing, have precipitated an explosion in the proliferation of technology in today's schools.

The Foundation for Excellence Digital Learning Council introduced the *10 Elements of High Quality Digital Learning*³³ in the fall of 2010. These elements identify action to be taken by lawmakers and policymakers to promote a high quality education for all students. The Digital Learning 2012 State Analysis compares Virginia with the national average on each of the elements (**Exhibit 8.1**); the Commonwealth ranked fifth. Overall, Virginia was above the national average with a score of 81 percent. While appearing rather low, the Commonwealth was behind only four other states. Virginia's biggest areas of concern include:

- Student Access – current caps on virtual school enrollment and restriction of access due to school division boundaries;
- Advancement – lack of opportunities to earn credits based on competency versus seat time; and
- Funding – lack of per course funding to pay providers for individual online courses and lack of course completion funding payment to providers based on student daily attendance, performance and competency.

³³ <http://www.digitalllearningnow.com/10Elements/>

Exhibit 8.1
Digital learning 2012 state analysis: Virginia

10 Elements of High Quality Digital Learning	Virginia Grade & Percentage		National Average Grade & Percentage	
	Grade	Percentage	Grade	Percentage
1. Student eligibility: All students are digital learners.	C	75%	F	44%
2. Student access: All students have access to high-quality digital content and online courses.	D+	67%	C	73%
3. Personalized learning: All students can customize their education using digital content through an approved provider.	C	75%	D-	65%
4. Advancement: Students progress based on demonstrated competency.	D	63%	D	60%
5. Quality content: Digital content, instructional materials, and online and blended learning courses are high quality.	A	100%	A	93%
6. Quality instruction: Digital instruction is high quality.	A	100%	C+	77%
7. Quality choices: All students have access to multiple high-quality providers.	A	96%	D	65%
8. Assessment and accountability: Student learning is the metric for evaluating the quality of content and instruction.	A	100%	D	66%
9. Funding: Funding creates incentives for performance, options, and innovation.	D	63%	F	44%
10. Delivery: Infrastructure: Infrastructure supports digital learning.	C	75%	F	51%

Source: <http://www.digitalllearningnow.com/wp-content/uploads/reportcard/2012/states/VA.pdf>

In total, the consulting team gave 10 commendations in this chapter:

- The FCPS technology director is a knowledgeable decision-maker, who has the expertise and leadership skills needed to effectively investigate, integrate, and manage all aspects of technology within the division.
- The FCPS technology department provides support and technical assistance across the division while being responsible for improvements to infrastructure, upgrades to hardware and software, pursuing training on their own, providing enhancements to their assigned product areas, and troubleshooting.
- The FCPS technology director secured funds for professional development related to the Student Information Systems software.
- FCPS has developed a robust educational technology plan that is aligned with the state-required SOQ and the division's multi-year strategic plan.
- The FCPS superintendent and staff recognize the importance of planning and strategizing together to ensure that instructional technology keeps pace with the 21st century classroom.

- The technology department has implemented a Microsoft System Center Configuration Manager 2012 and active directory 2012, thus allowing centralized management of computers, deployment of software updates, and login security.
- FCPS has implemented a strong Internet connection and network.
- FCPS recognizes the importance of educational technology integration for teachers and students and is providing the tools to meet the challenge of a 21st century education in its high school.
- The FCPS technology department has implemented an online help desk work order system.
- FCPS has initiated a teacher laptop replacement cycle.

The consulting team also made 13 recommendations in this chapter:

- Provide a quality education to all of our students. Add at least one tier 2 systems administrator to spread the responsibilities more evenly across the tier.
- Budget for ongoing professional development of technology department staff.
- Return at least two of the four required ITRT positions to exclusively focus on supporting teachers in instructional technology excellence.
- Contract with a vendor to set the priority and configure the packets.
- Develop a comprehensive disaster recovery plan that will ensure the ability to resume critical data functions in the event of a catastrophic loss.
- Fund a technology replacement plan.
- Support and expedite the implementation of Munis.
- Create standard operation procedures for mission critical areas in technology.
- Track the acquisition and deployment of all technology assets, once Munis is implemented.
- Upgrade the wireless networks in all buildings except the high school (which already has the latest technology).
- Inventory all instructional technology across the division and survey the teachers and staff regarding utilization.
- Investigate redundant backup communication connection options for the high school and integrate this into the disaster recovery plan.
- Develop a “student technical assistants” program to assist with basic trouble shooting and device deployment.

The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal impacts for those recommendations are not shown here.

Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
8.3	Add one tier 2 systems administrator.	\$0	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$325,000)
8.5	Budget for professional development in department.	\$0	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)	(\$2,000)
8.10	Configure packets.	(\$4,000)	\$0	\$0	\$0	\$0	\$0	(\$4,000)
8.13	Support and expedite the implementation of Munis.	\$0	(\$35,000)	(\$35,000)	\$0	\$0	\$0	\$0

A. Organization and Staffing

Today, technology is a foundational aspect of almost every organization. Technology drives efficiencies and analyses in school divisions. The requirements of *No Child Left Behind* (NCLB) include the expectation that school divisions make data-driven decisions, that students achieve technological literacy before 9th grade, and that teachers effectively integrate technology into classroom instruction.

The International Society for Technology in Education’s (ISTE) mission is to advance excellence in learning and teaching through innovative and effective uses of technology. According to ISTE’s CEO, Don Knezek,

*Integrating technology throughout a school system is, in itself, significant systemic reform. We have a wealth of evidence attesting to the importance of leadership in implementing and sustaining systemic reform in schools. It is critical, therefore, that we attend seriously to leadership for technology in schools.*³⁴

ISTE recognizes the need for the presence of specific essential conditions in order for schools to effectively leverage technology for learning and ensure the success of students, teachers and administrators. These are shown in **Exhibit 8.2**.

³⁴ www.iste.org

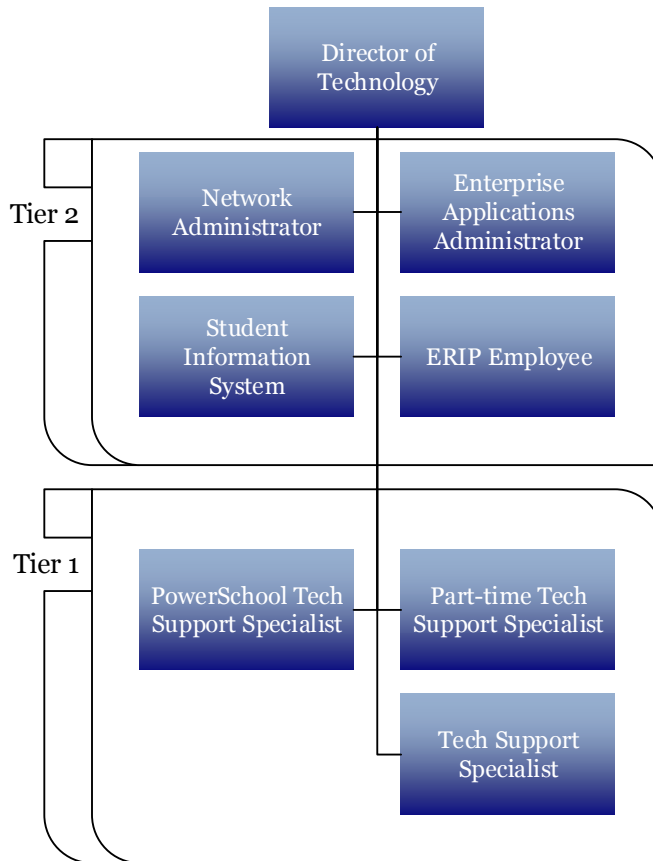
Exhibit 8.2
ISTE essential conditions

Essential Condition	Definition
Shared Vision	Proactive leadership in developing a shared vision for educational technology among all education stakeholders including teachers and support staff, school and division administrators, teacher educators, students, parents, and the community
Empowered Leaders	Stakeholders at every level empowered to be leaders in effecting change
Implementation Planning	A systemic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communication technologies (ICT) and digital learning resources
Consistent and Adequate Funding	Ongoing funding to support technology infrastructure, personnel, digital resources, and staff development
Equitable Access	Robust and reliable access to current and emerging technologies and digital resources, with connectivity for all students, teachers, staff, and school leaders
Skilled Personnel	Educators, support staff, and other leaders skilled in the selection and effective use of appropriate ICT resources
Ongoing Professional Learning	Consistent standards and related digital curriculum resources that are aligned with and support digital-age learning and work
Technical Support	Consistent and reliable assistance for maintaining, renewing, and using ICT and digital learning resources
Curriculum Framework	Content standards and related digital curriculum resources that are aligned with and support digital-age learning and work
Student-Centered Learning	Planning, teaching, and assessment center around the needs and abilities of students
Assessment and Evaluation	Continuous assessment, both of learning and for learning, and evaluation of the use of ICT and digital resources
Engaged Communities	Partnerships and collaboration within communities to support and fund the use of ICT and digital learning resources
Support Policies	Policies, financial plans, accountability measures, and incentive structures to support the use of ICT and other digital resources for learning and in division school operations
Supportive External Context	Policies and initiatives at the national, regional, and local levels to support schools and teacher preparation programs in the effective implementation of technology for achieving ICT standards

Source: ISTE, January 2014.

Exhibit 8.3 shows the 2013-14 organization of the FCPS administrative technology department. The FCPS technology department employs a full-time support team, staffed with a director of Technology, three system administrators [network, enterprise systems, student information system (SIS)], one dedicated SIS technical specialist, and one technical support specialist. The department also utilizes one part-time technical support specialist, a web site support person on an as-needed basis, and for 30 days per year an early retirement incentive program (ERIP) employee who provides technical support as assigned.

Exhibit 8.3
FCPS technology organizational chart



Source: FCPS technology department, November 2013.

FINDING 8.1

The FCPS technology director is a proactive, innovative leader. He has made significant advancements in his first 17 months in the areas of budgeting, planning, network enhancements, software, and communication within the division.

The director was hired in 2004 as a network administrator and served in this capacity as well as assumed duties normally assigned to the director until he was promoted to the director position in July 2012. The incumbent director at that time was only working three half days per week.

The director currently performs his job functions while continuing to perform the duties of the network administrator. He also serves as the chairperson of the educational technology planning committee. His successful leadership within the department was cited during interviews as the primary catalyst for the increased integration, utilization, support, and growth of technology within the division.

COMMENDATION

The FCPS technology director is a knowledgeable decision-maker, who has the expertise and leadership skills needed to effectively investigate, integrate, and manage all aspects of technology within the division.

FINDING 8.2

The FCPS technology staff is knowledgeable and skilled in their assigned areas of networking, enterprise systems, student information system (SIS) administration, and technical support. This was evidenced through interviews, focus group responses, and fieldwork observations.

The staff provides support and technical assistance across the division, is responsible for improvements to infrastructure, upgrades to hardware and software, inventory management, and troubleshooting. In addition to recommending, installing and supporting hardware, staff has been instrumental in a number of innovations that improve the efficiency of technology within the division. These innovations include developing and maintaining an online employee leave system, implementing a centralized end device management system that includes software deployment and system security, implementing an online helpdesk application for user assistance, and maintaining cloud-based Google Apps for Education.

COMMENDATION

The FCPS technology department provides support and technical assistance across the division while being responsible for improvements to infrastructure, upgrades to hardware and software, pursuing training on their own, providing enhancements to their assigned product areas, and troubleshooting.

FINDING 8.3

The division is short-staffed in tier 2 administrators. With only three staff members, there is little time for cross-training. Moreover, when there are large technology projects being implemented, the lack of staffing results in a backlog in technical support requests.

The technology department has three tier 2 administrators, each supporting a different area: enterprise application systems (including the CTE labs), the communications networks, and the student information system. Due to the amount of responsibilities each tier 2 employee has, there is little time for cross training of staff, which is problematic if any one of the three is out for a length of time.

Additionally, there is an increase in the backlog of work order tickets when large system projects or priority tasks are scheduled. For example, a backlog occurred in the fourth quarter of 2013 during the implementation of the Microsoft System Center Configuration Manager software (SCCM 2012) and active directory 2012 (AD). The technology department staff member assigned this complex effort was also the systems administrator responsible for tier 2 support of the high school. During that period, backlogged work order tickets became a source of frustration for high school staff.

RECOMMENDATION 8.3

Add at least one tier 2 systems administrator to spread the responsibilities more evenly across the tier.

This will allow each tier 2 employee to more efficiently and effectively manage the systems. This will also provide time for cross-training and will allow the division to continue to move forward with their technology initiatives in an efficient and timely manner.

FISCAL IMPACT

The consulting team estimates that adding one tier 2 system administrator position would cost FCPS approximately \$50,000, plus benefits of 25 percent.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add one system administrator (tier 2).	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)

B. Staff Development

Training in the use of technology is the most critical factor in determining whether that technology is used effectively or even used at all. All division staff must be able to successfully use the technology available to them. The role of division staff in using technology is increasingly critical for effective school management. Training must be ongoing; the technology environment is continuously evolving, and divisions must keep pace with the evolution. The building level and central office staff that support administrative and instructional technology must be well-trained in the technologies the division has selected so that they increase staff efficiency and effectiveness and ensure that processes used in the division are cost-effective.

FINDING 8.4

The FCPS technology director secured funds for professional development related to the Student Information System (SIS) software. This opportunity includes sending the SIS Administrator to PowerSchool University in 2014, sending building level SIS administrators to the local Virginia PowerSchool Users Group conference, sending central office staff to the Virginia Electronic Student Information Services conference, and bringing in a consultant to provide individualized training.

PowerSchool is the web-based student information system application implemented at FCPS. It provides a range of features used by division administrators and school level personnel, in addition to portals for teachers, parents, and students. Some of the modules include faculty management, scheduling, and address management. Links to PowerSchool are available from the FCPS website.

The professional development opportunities are expected to provide immediate return on investment through specialized training on new features, support issues, and exposure to interface software solutions. The staff development opportunities will also allow networking with people from other locations that can share their knowledge and experience.

COMMENDATION

The FCPS technology director secured funds for professional development related to the Student Information Systems software.

FINDING 8.5

The division is not funding ongoing staff development for technology staff.

PowerSchool University was last attended in 2010 by the SIS administrator and the PowerSchool technical support specialist. There was no evidence that the department has established minimum training levels for each staff position or developed individual development programs to align professional development with the individual's particular job responsibilities.

Creating an effective professional staff development plan will take time. ISTE's Technology Support Index rubric identifies highly efficient school divisions as having these staff development practices related to technology:

- A comprehensive staff development program is in place that impacts all staff. The program is progressive in nature and balances incentive, accountability, and diverse learning opportunities.
- Online training opportunities are provided for staff both on-site and remotely, and represents a diversity of skill sets.
- A process and delivery system has been established for just-in-time training and is used consistently.
- Expectations for all staff are clearly articulated and are broad in scope. Performance expectations are built into work functions and are part of the organizational culture.
- Technical staff receives ample training as a normal part of their employment, including training towards certification.
- Basic troubleshooting is built into the professional development program, and is used as a first line of defense in conjunction with technical support.

RECOMMENDATION 8.5

Budget for ongoing professional development of technology department staff.

The technology director should develop a list of classes (internal training sessions, online or classroom) for technology staff, based on identified needs, and develop an annual budget request to meet needs. He should also request funding to reimburse technology staff for the cost of certification testing for Cisco and Microsoft certifications as appropriate for each position.

FISCAL IMPACT

The consulting team estimates that at least \$4,000 will be needed each year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Budget for technology department training.	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)

C. Instructional and Administrative Technology

The impact of technology on student achievement revolves around how well technology is integrated to support student instructional objectives. This requires placing computers in schools and classrooms and providing the resources needed to incorporate technology into lesson plans and other educational activities. Substantial professional development emphasizing not only technology applications but also its integration into curriculum and classroom instruction is necessary. As noted in the 2013-14 superintendents' report, all teachers in FCPS are expected to integrate technology into their classrooms and to teach technology standards each year.

FCPS has made an effort in recent years to provide technology for students, staff and administrators, upgrading technology devices and infrastructure while being mindful of limited financial resources. FCPS has equipped classrooms and labs with instructional technology. Interactive whiteboards are installed in many classrooms throughout the division, especially at the high school.

As of November 2013, FCPS had distributed 1,377 desktop computers and 1,200 laptop computers, of which 1,967 are allocated for student use and 610 for administrative use. **Exhibit 8.4** shows an inventory of the computers used in the division. The number of interactive whiteboards, smart boards, projectors, document cameras and other technology equipment was not available.

Exhibit 8.4
FCPS computer inventory by use

Type of Computer	# of Computers	Use
Testing PCs	667	K-12 Testing Desktops
Testing LTs	480	K-12 Testing Laptops
Non-Testing Student PCs	500	HS CTE, Fine Arts & Distance Learning Labs, PreK-2 Classrooms, Division Sped Classrooms
Non-Testing Staff PCs	210	HS Classroom Teacher Stations, Division Staff Desktops
Teacher LTs	400	K-12 Teacher Laptops
Non-Testing Student LTs	320	3-12 Student Instructional Laptops
Total	2,577	

Source: FCPS Technology Department, November 2013.

FINDING 8.6

FCPS Instructional Technology Resource Teacher (ITRT) staffing does not meet the intent of the Virginia Standard of Quality (SOQ) requirements. The division is required to have one full-time ITRT per 1,000 students. For 2013-14, this would require at least 3.7 ITRTs. Although the division has four positions it identifies as ITRTs on state compliance documents, they are not currently functioning in that capacity. One is serving as a testing coordinator, one as a data manager, one as director of testing and accountability, and one as a network technical assistant. It appears that two of the positions identified as ITRTs were reassigned as long-term substitutes for portions of 2012-13 and 2013-14.

As noted in the SOQ:

To provide flexibility, school divisions may use the state and local funds for instructional technology resource teachers to employ a data coordinator position, an instructional technology resource teacher position, or a data coordinator/instructional resource teacher blended position. The data coordinator position is intended to serve as a resource to principals and classroom teachers in the area of data analysis and interpretation for instructional and school improvement purposes, as well as for overall data management and administration of state assessments.

FCPS staff acknowledges that ITRTs no longer provide instructional staff development and regular assistance to teachers striving to provide students with 21st century skills and integration of technology into their lessons. According to interviews and focus groups, support for and utilization of instructional technology is left to teachers through informal peer-to-peer collaboration. The educational technology committee has compiled a list of FCPS employees with specific technology skills that are willing to assist others in the division.

Beyond SOQ compliance, the consulting team found that while FCPS teachers meet at least the minimum VDOE Technology Standards for Students and Instructional Personnel (TSIP), there remains a wide range of teacher technology proficiency. At least some teachers are not as proficient as needed in order to increase student achievement through use of 21st century educational technology. The helpdesk work orders and questions by the instructional staff are one indicator that additional training is needed. On the May 2013 technology needs assessment survey most teachers, 73 percent, disagreed when asked if the division has adequate instruction training. On the same survey, 31 percent rated their own technology skill level as “fair” or “poor.” Thus, the need for ITRTs remains in the division.

RECOMMENDATION 8.6

Return at least two of the four required ITRT positions to exclusively focus on supporting teachers in instructional technology excellence.

As noted in the 2012-13 FCPS job description for ITRTs, this should include these responsibilities:

- *working collaboratively with individual teachers or groups of teachers to integrate technology into instruction;*
- *trains teachers in the use of media, equipment, and technology to support technology integration in the instructional program;*
- *works with principals and other staff members to implement division objectives for technology integration;*
- *ensures staff compliance with state-mandated technology certification as well as regular participation in specialized training and organizations related to technology integration;*
- *provides reports and updates to supervisor regarding progress toward meeting division goals;*
- *assisting with curriculum and content development;*
- *disseminating information regarding technology resources, emerging technologies, best practices using technology, and professional development opportunities;*

- *facilitating or conducting technology-related professional development for school staff;*
- *assessing levels of teacher and student technology use and skills;*
- *modeling effective instructional strategies using technology;*
- *serving as a member of the school technology committee;*
- *supporting implementation of the division and state technology plan;*
- *researching use of newer technologies in instruction;*
- *using data to design technology-based instructional strategies;*
- *recommending hardware, software, and related resources;*
- *identifying trends in software, curriculum, teaching strategies, and other educational areas;*
- *creating learning resources for teachers, staff, and students;*
- *serving as a strong advocate for technology integration; and*
- *collaborating with directors, principals, technology staff, and other ITRTs.*

FISCAL IMPACT

This recommendation can be implemented by current technology staff, presuming the division has hired to fill the long-term substitute positions.

D. Technology Planning and Budgeting

Successful technology planning is the foundation for successful technology implementation and development. School division technology is not just a stand-alone program; it is a long-term, ongoing effort that affects every aspect of division operations. The technology planning process is complicated. There are many factors to consider, including instructional integration, legislated data reporting, funding, professional development, training, disaster recovery, security, and staffing for support.

ISTE's necessary conditions to effectively leverage technology for learning reinforce the idea of shared leadership in successful technology planning, with three conditions:

- a shared vision among all stakeholders including teachers, staff, administrators, students, parents, and the community;
- empowering all stakeholders to effect change; and
- strategic implementation planning aligned with a shared vision.

These essential conditions cannot be met sporadically or by isolated decisions, but require active participation and representation by all effected. Sustained communication is crucial to system-wide planning, implementation, and evaluation.

Several studies, including research by the Gartner Group³⁵, an independent technology research and consulting firm, report that organizations should be budgeting between four

³⁵ <http://www.gartner.com/technology/home.jsp>

and six percent of their overall budgets for technology. There are no established best practices or standards in this area for K-12 schools.

However, some states are moving in that direction. Massachusetts, in 2006, recommended divisions budget \$425 per student (considering total cost of ownership, or TOC). TOC traditionally includes calculations of indirect costs, such as teacher time lost for support issues, as well as direct costs. A report published by the Council of the Great City Schools, October 2012, “Managing for Results in America’s Great City Schools”³⁶, provides some additional direction for school technology funding. The report gives information on technology spending per student that encompasses all aspects of technology spending. The median amount was found to be \$147. For FCPS, with a student enrollment of approximately 3,700, this budgeted amount would equal \$543,900. Currently, FCPS is spending far less – its 2013-14 technology budget was just \$298,331, excluding \$180,000 in VSPA funding for replacement of testing computers.

FINDING 8.7

FCPS has developed a comprehensive five-year educational technology plan that is aligned with the state-required SOQ and the division’s multi- year strategic plan. The mission of the plan is to provide the curriculum, resources, professional development, support, guidance, and accountability that will prepare FCPS students with 21st century skills allowing them to be adaptable and successful in a technology rich society.

The educational technology committee, chaired by the technology director, developed the plan using the state model as a guide. Committee membership consists of representatives from the central office administrators, school principals, teachers, parents, a school board member, and a community partner in education. This broad stakeholder technology committee seeks input from parents, students, and administrators via surveys, as well as industry standards. The committee meets twice a year or more to review and evaluate the effectiveness of the programs and recommend changes to the curriculum. The committee chair updates the superintendent on a regular basis to discuss the ongoing technology projects, schedules, tasks, and administrative and instructional technology challenges.

COMMENDATION

FCPS has developed a robust educational technology plan that is aligned with the state-required SOQ and the division’s multi- year strategic plan.

FINDING 8.8

The FCPS leadership works together in building the instructional technology infrastructure of the division. The curriculum and instruction team works closely with the superintendent, assistant superintendent, finance director, and technology director to plan strategies and ensure that purchases of hardware and software components are compatible and work with the current infrastructure.

36

http://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/81/Managing%20for%20Results_2011.pdf

The superintendent involves the administrative staff in the decision making process. Input is encouraged and expected. She works with the board of supervisors, school board members, and meets with community partners and parent groups. The superintendent meets weekly with the division's Educational Technology Team chairperson.

COMMENDATION

The FCPS superintendent and staff are commended for recognizing the importance of planning and strategizing together to ensure that instructional technology keeps pace with the 21st century classroom.

FINDING 8.9

The division has implemented Microsoft System Center Configuration Manager (SCCM 2012) and Active Directory 2012. This provides the technology department with a robust centralized end device management system. SCCM 2012 allows technology staff to identify devices connected to a network through Active Directory and install client software on them. It also manages application deployments and updates, allowing for automated patching and policy enforcement.

An example of the importance of this implementation occurred while the consulting team was on-site. The technology staff found that testing software was unavailable on a day scheduled for testing and determined that the software vendor had upgraded the software overnight without notification but the upgrade did not work. Using SCCM 2012, the technology enterprise administrator was able to deploy a "fix" within an hour on all the affected testing computers without leaving his desk. Prior to the implementation of SCCM 2012, it would have taken the entire department several days to manually update each testing computer.

In the past, both FCPS staff and students used generic logins to access computers. The active directory software will allow FCPS to assign individual logins to all users, providing a more secure network.

COMMENDATION

The technology department has implemented a Microsoft System Center Configuration Manager 2012 and active directory 2012, thus allowing centralized management of computers, deployment of software updates, and login security.

FINDING 8.10

The FCPS network connection between the high school and the Abrams building has intermittent quality of service (QOS) problems. Even though the high school has a 100MB WAN connection to Abrams, staff noted that during certain times of the day it gets saturated due to student personal devices which are allowed on site. The content filter has QOS enabled and the network administrator has been able to throttle the bandwidth use of those devices in the high school. Currently, the content filters do not help prioritize the packets between the high school and the Abrams building. Doing this would require system tools to tag the packets at the access layer in the high school switches and then define the priority all the way from the high school through Abrams.

The configuration of QOS is a specialized function that the FCPS technology staff says would need to be contracted out. Ideally, the division would configure packets at all locations, but currently only the high school WAN connection is saturated enough for the end users to experience poor quality of service.

RECOMMENDATION 8.10

Contract with a vendor to set the priority and configure the packets.

Quality of service of the network traffic to and from the high school needs to be prioritized and configured with consideration given to throughput, error rates, transmission delay, availability, bandwidth, etc. This will require specialized configuration skills and time for analysis and implementation.

FISCAL IMPACT

The consulting team estimates that contracting with a network analyst with experience would cost FCPS approximately \$60 to \$100 an hour based on the experience. For a 40-hour week, the estimate would be \$2,400 to \$4,000.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Contract out for packet configuration.	(\$4,000)	\$0	\$0	\$0	\$0

FINDING 8.11

The division does not have a comprehensive disaster recovery plan. FCPS leadership acknowledges the need for a disaster recovery plan that includes all aspects of the division’s technology infrastructure and data systems. In terms of data backups, some components of a plan are already addressed by the technology department. For example, the technology staff runs a daily backup of PowerSchool that is written to an on-site backup server and to an external disk which is taken offsite.

The Open RDA Financial Management system that runs the FCPS financials and the Follett Destiny Library Manager backup and recovery processes are covered by a contract agreement with the software providers. Backups are kept offsite in the vendor’s datacenter for these two applications. All other backups including the multiple spreadsheets used by central office personnel, standalone system data, and teacher and student files are done on an individual, voluntary basis.

In the event of a natural disaster or severe power surge, the division does not have procedures documented to ensure that all its critical data, systems, and programs can be brought back to pre-disaster status. Should a catastrophic event occur, such as a flood, fire, or vandalism, the division’s data would be at risk of loss. In addition to data loss, the division would not be able to conduct key business operations until the original systems were restored.

Exhibit 8.5 defines the process of developing an effective disaster recovery plan.

Exhibit 8.5
Summary of essential disaster recovery plan elements

Step	Details
Build the disaster recovery team.	Identify a disaster recovery team that includes key policy makers, building management, end-users, key outside contractors, and technical staff.
Obtain and/or approximate key information.	Develop an exhaustive list of critical activities performed within the system.
	Develop an estimate of the minimum space and equipment necessary for restoring essential operations.
	Develop a timeframe for starting initial operations after a security incident.
	Develop a list of key personnel and their responsibilities.
Perform and/or delegate key duties.	Develop an inventory of all computer technology assets, including data, software, hardware, documentation, and supplies.
	Set up a reciprocal agreement with comparable organizations to share each other's equipment or lease backup equipment to allow the system to operate critical functions in the event of a disaster.
	Make plans to procure hardware, software, and other equipment as necessary to ensure that critical operations are resumed as soon as possible.
	Establish procedures for obtaining off-site backup records.
	Locate support resources that might be needed, such as equipment repair, trucking, and cleaning companies.
	Arrange with vendors to provide priority delivery for emergency orders.
	Identify data recovery specialists and establish emergency agreements.
Specify details within the plan.	Identify individual roles and responsibilities by name and job title so that everyone knows exactly what needs to be done.
	Define actions to be taken in advance of an occurrence or undesirable event.
	Define actions to be taken at the onset of an undesirable event to limit damage, loss, and compromised data integrity.
	Identify actions to be taken to restore critical functions.
	Define actions to be taken to re-establish normal operations.
Test the plan.	Test the plan frequently and completely.
	Analyze the results to improve the plan and identify further needs.
Deal with damage appropriately.	If a disaster actually occurs, document all costs, including photo and video documentation of the damage.
	Be prepared to overcome downtime on your own; insurance settlements can take time to resolve.
Give consideration to other significant issues.	Do not make a plan unnecessarily complicated.
	Make one individual responsible for maintaining the plan, but have it structured so that others are authorized and prepared to implement if it is needed.
	Update the plan regularly and whenever changes are made to your system.

Source: National Center for Education Statistics, "Safeguarding Your Technology," April 2003.



RECOMMENDATION 8.11

Develop a comprehensive disaster recovery plan that will ensure the ability to resume critical data functions in the event of a catastrophic loss.

To successfully implement this recommendation, FCPS should first establish a disaster recovery planning committee. During the planning process the division should classify applications and systems into categories such as mission critical, critical, essential, and non-critical. These categories indicate how important the application or system is to the division's operation and whether or not the application or system functions can be performed manually.

The division should then determine the desired restoration timeframe for each category. Results of these discussions will be the primary drivers of the scope of the plan and the financial cost to the division for implementing the disaster recovery plan.

FISCAL IMPACT

Funding for the plan should be made available through the annual capital improvements plan (CIP) budget. The specific amount needed will depend on the recovery supports selected, but should not exceed more \$50,000.

FINDING 8.12

The division has not fully funded its equipment replacement plan. The technology department tracks FCPS hardware and software in a spreadsheet. The replacement cycle and total projected replacement costs are shown in **Exhibit 8.6**. As shown, although the department understands the need to replace equipment regularly, the division has not fully funded an equipment replacement schedule. Currently, only 54 percent of the technology need is provided for in the technology operational budget.

To achieve satisfactory efficiency status on the ISTE Index, equipment should be placed on a four- to five-year life cycle. Some categories, such as student lab computers, may require more frequent replacement than those computers used in administrative capacities.

RECOMMENDATION 8.12

Fund a technology replacement plan.

FCPS needs to implement a sustainable computer replacement plan and CIP budget. The superintendent should annually link division general funds designated for computer replacement to the number of computers to be replaced. The same process can be used for other computer-related equipment, such as printers.

FISCAL IMPACT

The fiscal impact of this recommendation will depend upon the replacement schedule adopted. FCPS should work to include replacement costs in the CIP budget.

Exhibit 8.6
FCPS computer inventory summary and estimate of replacement cycle

Description	Count	Cost Per Unit	Replacement Frequency	Replacement Cycle Cost	Budget Line	Budget	Budget Shortfall
K-12 Testing Desktops	667	\$ 800	5.years	\$ 106,720	VPSA - Tech	\$ \$107,000	\$ \$280
K-12 Testing Laptops	480	\$ 800	5.years	\$ 76,800	VPSA - Tech	\$ \$73,000	\$ (\$3,800)
HS CTE, Fine Arts & Distance Learning Labs, PreK-2 Classrooms, Division Sped Classrooms	500	\$ 800	5.years	\$ 80,000	Does Not Exist	\$ \$0	\$ (\$80,000)
HS Classroom Teacher Stations, Division Staff Desktops	210	\$ 800	5.years	\$ 33,600	Does Not Exist	\$ \$0	\$ (\$33,600)
K-12 Teacher Laptops	400	\$ 800	4.years	\$ 80,000	8102-TechOPS	\$ \$51,600	\$ (\$28,400)
3-12 Student Instructional Laptops	320	\$ 800	5.years	\$ 51,200	Does Not Exist	\$ \$0	\$ (\$51,200)
Total	2,577			\$ 428,320		\$ \$231,600	\$ (\$196,720)

Source: FCPS Technology Department, November 2013.

FINDING 8.13

FCPS is running the Open RDA financial system, which does not provide the system integration or functionality needed. FCPS does not have a human resources software solution and has little or no integration with the other FCPS major systems. Data redundancy and increased errors affecting data integrity are additional indicators that the RDA software needs to be replaced.

FCPS has received funding approval from the board of supervisors to purchase the cloud-based Munis software suite from Tyler Technologies. The benefits of a comprehensive, consistent financial management system for the entire division are significant. They include:

- integration of human resources and payroll information. The school division would benefit from the ability to segregate HR and payroll functions and provide a level of financial integrity that has been missing.
- integration of budget, human resources, payroll, and accounts payable functions within a single reporting system. Reports could be generated from a single, consolidated database. User reports and summary school board reports could be generated without the need to download information into various spreadsheets.
- addition of a fixed asset system and a fleet maintenance system. This will provide tracking, monitoring, replacement and update cycles.

Once implemented, the new software will address the financial and human resources needs of the division. The Munis system will integrate several modules including: accounting functions, general ledger, accounts receivable, accounts payable, budget, fixed assets, work orders, fleet and facilities management, purchase orders, cash management, project & grant accounting, requisitions, payroll with Employee Self Service (ESS), human resources, and applicant tracking. The suite will also include several software tools to manage Munis and allow for remote access for the Piedmont Regional Education Program (PREP)³⁷.

The division did not have a signed contract at the time of the consulting team's fieldwork, nor a detailed implementation timeline. With contract execution expected in February 2014, FCPS currently plans to implement general ledger/accounts payable and associated financials, along with work orders, fleet and facilities maintenance to coincide with the start of fiscal year 2016, then to complete the conversion for payroll related tasks on January 1, 2016.

The FCPS implementation team includes but is not limited to:

- Technology - director and one tier 2 staff member;
- Finance - the entire department (director and three clerks);
- Bookkeepers - all five will be involved plus the operations/transportation administrative assistant;
- HR - the licensure specialist and payroll clerk (from finance);
- Food Service - supervisor and clerk;

³⁷ PREP provides special education programming and related services to nine school districts under an umbrella of a regional program.

- PREP - the personnel person; and
- Blue Ridge Virtual Governor’s School – director and staff.

However, no one person in the division will be assigned full-time to the Munis implementation. In the experience of the consulting team, this is likely to lead to delays and possibly missteps in implementation. Moreover, the timeline as currently envisioned is quite lengthy. Having someone devoted full-time to implementation would likely allow the division to move more quickly.

RECOMMENDATION 8.13

Support and expedite the implementation of Munis.

The division should contract with a project manager during the one- to two-year implementation process. This position would be contracted only during the Munis implementation.

FISCAL IMPACT

The consulting team estimates that a contracted project manager would require approximately \$35,000 per year. The position would not necessarily be full-time, which accounts for the low figure.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Contract with a project manager for the Munis implementation.	(\$35,000)	(\$35,000)	\$0	\$0	\$0

E. Technology Policies and Procedures

In nearly every organization, network administrators, troubleshooters and engineers invariably maintain information technology documentation details in personal databases or spreadsheets. Establishing division standards and then linking those data with infrastructure data located in an asset inventory system, network monitoring tool, or network management system can be the start of an excellent documentation effort. Good information technology documentation helps people avoid mistakes based on bad assumptions, helps people avoid lengthy research projects into what the department should already know about itself and helps people make good decisions at all levels of the division.

FINDING 8.14

The technology department does not currently have a comprehensive procedures manual. The structure of the department is such that the three tier 2 administrators each have their own area of support (enterprise systems, including the school CTE labs; the communications networks; and the student information system). Although there has been limited cross training of staff, there is no document that would allow an individual to assume full control of several mission critical functions. Additionally, there is no tier 1 procedural manual to efficiently resolve end user problems.



Interviews revealed that some procedures are documented but are not standard from one person or process to another. There are guides and helpful tools available to assist the technology department in developing documentation standards. Once developed, it is essential that everyone is aware of the standards, and understands the importance of keeping the processes updated.

The division uses Spiceworks, a freeware software package, for its work order help desk requests. Spiceworks also has a sample tool that could be used to develop documentation standards.

RECOMMENDATION 8.14

Create standard operation procedures for mission critical areas in technology.

The technology director should oversee development of procedures for all areas, including system backup, the processes for acquiring computer equipment, and software, email, and user account creation. Once documented, all staff in the department should cross-train using the procedures.

FISCAL IMPACT

The technology director and technology staff can implement this recommendation as part of their regular duties.

F. Inventory Control

Management of information technology assets is an important part of an organization's strategy. Items should be recorded in a digital file by serial number, tagged, and have their location and person of primary responsibility noted, as well as the date of purchase. Multiple digital copies of this file should be saved and given to the superintendent and principals. Updates should be made as new purchases are received and obsolete equipment is retired. At a minimum, an inventory of all equipment should be conducted annually.

FINDING 8.15

The technology department does not have an inventory control system that is integrated with the division's fixed asset profile through the financial software modules. To the division's credit, computer inventory data and replacement cycles are available but the data are not integrated with the financials or automated tools designed with tracking and reporting capabilities. Spreadsheets are used to track locations and other pertinent information as shown in **Exhibit 8.7**. As shown, the department does not maintain an inventory of all technology equipment (e.g. projectors, white boards, etc.). Additionally, the teacher laptops are staged and delivered by technical support staff to the schools where they are tagged or barcoded by the individual building media center personnel. The school level barcoding is not integrated with the technology department's inventory file. The technology director hopes to utilize the Munis® Fixed Asset module when the software is implemented.

The division has already received approval from the board of supervisors to purchase the Munis software. Fixed assets software is included in the Munis suite. Based on the description of the applications provided by the vendor, the software includes a wide variety

of tracking and reporting features.³⁸ On the Munis website, the fixed asset system is described as a complete set of financial statements, both to fulfill auditor's requirements and to reflect the organization's investment in fixed assets. It is designed to assist capital planning (replacement/ enhancement of assets). Fixed assets also include features to help track items transferred, missing, or not in use, or are due for maintenance or replacement.

RECOMMENDATION 8.15

Track the acquisition and deployment of all technology assets, once Munis is implemented.

The technology director should ensure that the Munis fixed asset module is part of the overall Munis implementation.

FISCAL IMPACT

This recommendation can be implemented by current technology staff when the Munis fixed assets module is implemented. It will require a small but consistent amount of time from the staff member(s) monitoring asset status.

³⁸ <http://www.tylertech.com/ProductSheets/Munis/FinancialManagement/MunisFixedAssets.pdf>

Exhibit 8.7
FCPS computer inventory by building and role

Building	Room	Lap Top Cart	Type	Make	Model	Qty	Role	VPSA?	Replaced
Alted	2 classrooms	no	PC	Dell	170L	20	Testing	no	2013-2014
CAR	3 Mobile Carts	yes	LT	Dell	Vostro	90	Instruction	yes	
CAR	5 Mobile Carts	yes	LT	Lenovo	S12	150	Testing	yes	
CAR	Lab 106 - Old Godsey	no	PC	Dell	210L	24	Testing	yes	2013-2014
CAR	Lab5 - big math	no	PC	Dell	170L	25	Testing	yes	2013-2014
CAR	Lab4 - mini math	no	PC	Dell	170L	24	Testing	yes	2013-2014
CAR	Lab 100	no	PC	Dell	170L	24	Testing	yes	2013-2014
CAR	Lab 102	no	PC	Dell	7010	30	Testing	yes	
CAR	Lab 104	no	PC	Dell	7010	30	Testing	yes	
CAR	Library	no	PC	Dell	170L	8	Testing	yes	2013-2014
CEN	3 Mobile Carts	yes	LT	Lenovo	S12	90	Testing	yes	
CEN	Lab 109	no	PC	Dell	755	25	Testing	yes	2013-2014
CEN	Lab 211	no	PC	Dell	755	25	Testing	yes	2013-2014
CEN	Library Computer Lab	no	PC	Dell	755	25	Testing	yes	2013-2014
CEN	Library	no	PC	Dell	740	8	Testing	yes	2013-2014
CEN	Classrooms	no	PC	Misc	Misc	210	Instruction	no	
FCPS	Teacher Laptops	no	LT	Dell	Misc	30	Instruction	no	
HS	Teacher Laptops	no	LT	Dell	Misc	110	Instruction	no	2015-2016
MS	Teacher Laptops	no	LT	Dell	Misc	80	Instruction	no	2014-2015
CAR	Teacher Laptops	no	LT	Dell	E5530	80	Instruction	no	2013-2014
CEN	Teacher Laptops	no	LT	Dell	E5530	100	Instruction	no	2013-2014
FCPS	Departmental Staff	no	PC	Misc	Misc	100	Support	no	
FCPS	SPED	no	PC	Misc	Misc	25	Instruction	no	
HS	4 Mobile Carts	yes	LT	Dell	E5520	120	Testing	yes	2012-2013
HS	3 Mobile Cart	yes	LT	Dell	E5520	90	Instruction	yes	2012-2013
HS	1 Mobile Cart - guidance	yes	LT	Dell	E5520	30	Instruction	yes	2012-2013
HS	1 Mobile Cart - library	yes	LT	Dell	Vostro	30	Instruction	yes	
HS	1 Mobile Cart - programming	yes	LT	Lenovo	S12	20	Instruction	yes	

Exhibit 8.7
FCPS computer inventory by building and role (continued)

Building	Room	Lap Top Cart	Type	Make	Model	Qty	Role	VPSA?	Replaced
HS	3108	no	PC	Dell	790 / 7010	30	Testing	yes	2012-2013
HS	3110	no	PC	Dell	790 / 7010	30	Testing	yes	2012-2013
HS	3608	no	PC	Dell	790 / 7010	30	Testing	yes	2012-2013
HS	3610	no	PC	Dell	790 / 7010	30	Testing	yes	2012-2013
HS	4606	no	PC	Dell	790 / 7010	30	Testing	yes	2012-2013
HS	All Classrooms	no	PC	Dell	790	110	Teacher Stations	no	2012-2013
HS	Library	no	PC	Dell	790	10	Testing	no	2012-2013
HS	CTE - Business	no	PC	Dell	790	80	Instruction	no	2012-2013
HS	CTE - Engineering	no	PC	Dell	T1650	25	Instruction	no	2013-2014
HS	CTE - TV Production	non	PC	Apple	Imac	30	Instruction	no	
HS	Graphic Arts	no	PC	Dell	Eng Refurb	25	Instruction	no	2013-2014
HS	Journalism	no	PC	Dell	790	30	Instruction	no	2012-2013
HS	Distance Learning	no	PC	Dell	790	50	Instruction	no	2012-2013
HS	Music	no	PC	Dell	OLD	25	Instruction	no	
MS	1 Mobile Carts - library	no	LT	Dell	Vostro	30	Instruction	yes	
MS	1 Mobile Carts - library	no	LT	Lenovo	S12	30	Instruction	yes	
MS	4 Mobile Carts	no	LT	Dell	Misc	120	Testing	yes	
MS	Abrams-A5	no	PC	Dell	170L	48	Testing	yes	2013-2014
MS	Abrams Stage	no	PC	Dell	GX60	55	Testing	yes	2013-2014
MS	303	no	PC	Dell	170L	25	Testing	yes	2013-2014
MS	305	no	PC	Dell	170L	25	Testing	yes	2013-2014
MS	200	no	PC	Dell	170L	25	Testing	yes	2013-2014
MS	101 - Godsey Lab	no	PC	Dell	790	25	Testing	yes	
MS	Library	no	PC	Dell	GX520	36	Testing	yes	2013-2014
					Total	2,577			

Source: Technology department, January 2014.

G. Systems Infrastructure and Integration

Technology infrastructure consists of cabling, hubs, switches, routers, and other devices that connect the various parts of an organization through local area networks (LANs) and a wide area network (WAN). A high-speed infrastructure allows users to access information inside and outside the organization.

One of the most basic requirements of a technology system is a solid infrastructure. It is much like a highway, moving data at high speeds with significant traffic. Dirt roads for cars are no longer in extensive use for major U.S. highways for a good reason. Similarly, information highways (infrastructure) must be more and more robust as they become more heavily trafficked.

Additionally, the use of wireless technology is beneficial and efficient with advances in both the technical aspects of laptop computers as well as security and the use of wireless networks. The advances in this area of technology allow teachers and students alike to work in areas of the school on computers without wired access.

FINDING 8.16

The division has implemented a robust computer network and improved internet connectivity. The division's shared internet bandwidth was upgraded from 50mb to 200mb in 2013. In addition, all buildings are connected via a wide area network utilizing either point-to-point microwave or fiber optic connectivity.

Internet access and bandwidth issues were addressed with the upgrade to 200mb in 2013. Previously, staff had noted that the less robust FCPS network within the schools was an impediment to instructional and administrative technology use, and limited the ability of all staff to successfully accomplish their jobs, ultimately impacting student learning. Some of the areas that had been mentioned were Internet speed and slow response time during testing periods.

In computer networks, bandwidth is often used as a synonym for data transfer - the amount of data that can be carried from one point to another in a given time period. As teachers and students access the wealth of data available on the Internet to enhance learning, greater amounts of bandwidth are necessary to allow for seamless viewing of multimedia and video content.

FCPS has connected all its schools via a wide area network. The wide area network has multiple benefits including consolidation of resources and more protection and control of the data. With the point-to-point and fiber optic connectivity, administrators and users at all locations can communicate locally or work with others across the Internet.

COMMENDATION

FCPS has implemented a strong Internet connection and network.

FINDING 8.17

Fluvanna High School provides an abundance of technology to teachers and students. The high school has testing labs, specialized classrooms averaging 25 to 30 computers each, mobile labs (approximately 30 laptops each), teacher laptops, teacher

learning communities, teacher work areas, interactive whiteboards in every classroom, projectors, and more.

Investments in technology equipment, user access and mobile learning devices are essential to helping students learn the skills they will need to compete on a global scale. This premise was discussed by panelists during a September 2010 conference, “Back to School: Learning and Growing in a Digital Age,” hosted by Common Sense Media, the Children’s Partnership, PBS Kids, and the University of Southern California’s Annenberg Center on Communication Leadership and Policy. The conference identified three imperatives for U.S. education today:

- every child should be digitally literate before graduating from high school;
- all parents must be informed about their children’s digital media lives; and
- every classroom needs to be a 21st century learning environment.

To meet this challenge, most educators will need to approach technology from a radically different perspective. They increasingly will spend more time modeling creative thinking and showing how to probe information rather than teaching facts. In many instances, they will find themselves serving more as facilitators of information gathering and analysis than as the conduits. Moreover, when the venue for work is technology, the teacher often finds himself or herself joined by many peer coaches—students who are technology savvy and eager to share their knowledge with others.

The consulting team found that Fluvanna High School has provided the technology tools to meet these challenges. **Exhibit 8.8** shows teachers collaborating during a class session held in the library. In the photo, an FCPS teacher is demonstrating the use of Pinterest, a collaborative and popular website for categorizing and sharing images. High school students collaborating through technology in multiple settings are shown in **Exhibit 8.9**.

Exhibit 8.8 **FCPS teacher collaboration**



Source: Prismatic, January 2014.

Exhibit 8.9 FCPS high school student collaborations



Source: Prismatic January, 2014.

COMMENDATION

FCPS recognizes the importance of educational technology integration for teachers and students and is providing the tools to meet the challenge of a 21st century education in its high school.

FINDING 8.18

Wireless access is not easily or consistently available throughout the division. In interviews, most staff acknowledged that this is a true frustration for system users.

FCPS is taking steps to solve the problem of inconsistent wireless connections by requesting CIP funding for replacement of the aging infrastructure at all schools except the high school, which was built one year ago. The vote by the board of supervisors on the 2014-15 budget is expected in April 2014. If the infrastructure replacement request is approved, the wireless problem will be addressed along with other technology communication issues.

RECOMMENDATION 8.18

Upgrade the wireless networks in all buildings except the high school (which already has the latest technology).

FCPS should implement the building level wireless network and infrastructure upgrades and replacements to possibly include new cabling standards, advanced switching architecture, and faster and more energy efficient servers. These elements were included in the 2014-15 CIP budget request.

FISCAL IMPACT

Pending the approval of the 2014-15 CIP budget for FCPS wireless infrastructure replacement, the division has already planned for this expenditure.

FINDING 8.19

FCPS elementary and middle school classrooms are not all equipped with interactive whiteboards. The technology department does not maintain an inventory of interactive whiteboards, LCD projectors and other smaller technology resources. The consulting team found that while many elementary and middle school classrooms have projectors, only a few have interactive whiteboards. A needs assessment conducted by the educational technology committee in 2013 asked teachers about their top three most pressing issues. The results were:

1. teacher laptops;
2. classroom instructional hardware (white boards, LCD projectors, computers); and
3. student computer access.

At the time of the consulting team's fieldwork, 100 new teacher laptops were being staged and distributed. Carysbrook Elementary had recently received two new computer labs.

However, classroom instructional hardware in the elementary and middle schools is still a pressing issue in the division. This is a problem since there are no replacement cycles or division-wide initiatives.

The FCPS 2010-2015 Educational Technology Plan includes strategies for a model classroom project. However, the plan does not include a sustainable budget that includes a replacement cycle for all instructional technology such as LCD projectors, interactive whiteboards, document cameras, and TVs. With model classrooms FCPS could have homogeneous environments which would assist teacher training and the establishment of mandatory teacher instructional technology goals across the division. The emerging technologies deployed in such a classroom would work in concert with existing technologies to further support best practices and promote student achievement through problem solving, critical thinking, and collaboration.

RECOMMENDATION 8.19

Inventory all instructional technology across the division and survey the teachers and staff regarding utilization.

This process should involve the technology staff and ITRTs. The outcome should include a detailed inventory of currently deployed classroom technology and an assessment of actual utilization. Once this is accomplished, FCPS should develop and implement a model classroom pilot project of instructional technology using existing equipment. Future expansion of the pilot should include a model classroom for each grade level or department. This would allow FCPS instructional staff to benefit from the pilot while central office administrators develop the necessary budget requirements for future expansion throughout the elementary and middle schools.

FISCAL IMPACT

The inventory, equipment utilization assessment, and setup of a model classroom pilot can be implemented by current technology staff. The initial inventory is likely to require no more than several hours of staff time per school. Surveying teachers and staff will require minimal

time on the part of those taking the survey; survey development and subsequent analysis will require only a few hours on the part of technology staff.

FINDING 8.20

If a disaster occurs that breaks the high school network connection to Abrams, the high school would become a communication island. The two most critical areas that would be affected are student testing and access to the instructional data. When the high school was built there was community concern about placing a communications tower in the area. At the same time fiber optic cable was already being run by the local telephone company, so the division selected a leased fiber line as its solution. Currently, if something happens to break this connection the high school could not access the Abrams building servers where essential data are stored.

RECOMMENDATION 8.20

Investigate redundant backup communication connection options for the high school and integrate this into the disaster recovery plan.

An alternate connection should be put in place as backup for the high school's 100mb metro Ethernet connection. Options to consider are:

- adding another provider;
- adding a cell tower; and
- running their own fiber connection.

The division should select a solution and include funding for it in the next budget cycle.

FISCAL IMPACT

The exact fiscal impact will depend on the specific solution selected by the division.

FINDING 8.21

The current staffing in the technology department is insufficient to roll out new technologies and continue to support existing software and hardware.

Technician staffing is well below best practice levels.

Currently, there are several hundred computers and laptops that need to be installed or staged and distributed to the testing labs, teachers, and some support personnel. This backlog can be seen in **Exhibit 8.10**, which shows stacks of laptops waiting to be processed. Progress has been made since July 2013 when the computers were purchased but much work remains to be done. The 500 testing PCs were purchased with VPSA money and the guidelines do not allow for service contracts to assist with installation and training, so FCPS staff must handle their deployment. Approximately 200 teacher laptops were also purchased in July 2013. The deployment of the computers has and will continue to impact the work orders, potentially causing a backlog due to the time and manpower it takes to deploy such a large number of computers. The SCCM 2012 software will greatly reduce the time to install the software but there are other processes each computer must go through prior to actual distribution to schools. Deploying new devices would normally be a tier 1 technician responsibility, but due to the large number, all staff in the department are currently assisting

in the task. This takes time away from other departmental tasks, such as provide technical support to teachers and schools.

Exhibit 8.10
FCPS technology warehouse showing laptops awaiting deployment



Source: Prismatic, January 2014.

One yardstick for measuring the necessary technology staffing is the ratio of computers to support personnel. The International Society for Technology in Education (ISTE) has developed numerous benchmarking materials and standards related to technology staffing. The ISTE Technology Support Index, as shown in **Exhibit 8.11**, is a rubric for information technology departments to determine technician staffing requirements.

Exhibit 8.11
ISTE technology support index

Index Area	Technology Efficiency			
	Low	Moderate	Satisfactory	High
Computer to technician staffing ratio (number of computers to technicians)	250:1	150:1 to 250:1	75:1 to 150:1	Less than 75:1

Source: ISTE website, 2008.

The division’s inventory of computer devices (laptops and desktops only) totals 2,577, which yields a ratio of one technician per 396 devices, considering all 6.5 technology department staff (but not considering the ITRTs who are not currently providing appreciable technical support). This places FCPS well below the ratio needed to be considered in the ISTE “low” category.

The demands on the tier 1 technical specialists have grown since 2012-13 and there is a backlog of work orders and special projects. Tier 2 system administrators reported that they often provide user support and work order solutions that would normally be handled by a tier 1 specialist. As the use of educational technology increases and the computer

replacement cycles are implemented, the demand will continue to grow. It does not appear that the technology demands in FCPS will decrease in the future.

The division does not currently have a student assistant program. Keyboarding and basic computer skills are already offered as part of the business Career Technical Education (CTE) program and a “student technical assistant” program is a logical next step. Such a program could provide basic technical support and prepare students for technology-centered careers after graduation. In a 2002 National School Boards Foundation survey, 54 percent of school leaders reported that students were successfully providing support within their schools.³⁹

As reported on the VDOE website⁴⁰, Virginia acknowledges the importance of career and technical education to students and the Commonwealth through diploma seals awarded by the Board of Education, by recognizing industry credentialing in its diploma requirements, and through the use of Career Clusters and Pathways. The Information Technology cluster is about entry-level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services. On the VDOE website, the Career Clusters Plan of Study link is listed as a resource to assist CTE administrators and school counselors in developing student academic and career plans of study for successful transitions between secondary and postsecondary education for each pathway within a career cluster. The template sample plans of study meet all the state and federal requirements.

RECOMMENDATION 8.21

Develop a “student technical assistants” program to assist with basic trouble shooting and device deployment.

Given the division’s financial constraints, it is unlikely it will have the resources to add significantly to staffing in the technology department in the next few years, beyond previous recommendations to add one tier 2 specialist and returning at least two ITRTs to technical support functions. Because of this, the division should develop a CTE Information Technology pathway offered at the high school through future computer and network certification classes. These courses would provide the certifications and experience needed for FCHS graduates to be employed by technology departments right out of high school.

FISCAL IMPACT

The CTE Information Technology pathway plan must be created before the fiscal impact is known. However, the division may need to consider adding a teacher position for this pathway, if no existing staff has the requisite skills and certifications.

H. Technical Support and Help Desk Operations

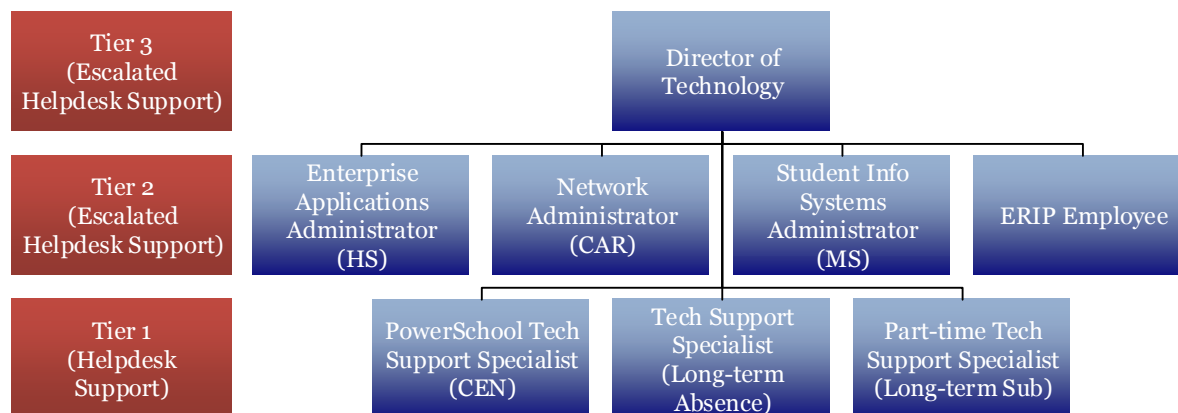
The FCPS service desk uses a three-tiered level of support (**Exhibit 8.12**). Technology support specialists act as the level 1 support. If they cannot resolve the request or the issue, it is escalated to level 2 support, which is provided by one or more of the system

³⁹ <http://knol.google.com/k/using-high-school-students-as-technical-assistants#>

⁴⁰ http://www.doe.virginia.gov/instruction/career_technical/index.shtml

administrators depending upon the nature of the issue or request. If they cannot address the issue, the level 3 technology director or vendor support will attempt to resolve the issue.

**Exhibit 8.12
FCPS technology help desk organizational chart**



Source: FCPS technology department, November 2013.

FINDING 8.22

FCPS has implemented Spiceworks software as the work order system to submit help desk requests. It includes useful features such as request routing by school, inquiry and reporting, analysis tools, and request tracking. The Spiceworks help desk system used by FCPS is accessible via the web site and serves as the “service desk” for the day-to-day technology liaison between FCPS’ teachers, administrators, central office staff, school board members, and technical support. When a user enters a help desk request the system controls route the request to the systems administrator assigned to the requestor’s location. If used correctly and consistently, the staff considers the system a source of documentation of the original request (with time/date stamp), the follow-up and the steps taken to resolve the help desk issue.

COMMENDATION

The FCPS technology department has implemented an online help desk work order system.

L. Technology Acquisition, Donation, and Surplus Practices

Any additions or deletions of school property are typically subject to intense public scrutiny. As such, the public expects strict governance of the acquisition and disposal process as well as equity in the distribution of such assets.

School divisions typically struggle with inventory disposal. Compounding the disposal problem, the resale value of obsolete equipment is typically quite low. This provides little incentive for divisions to dispose of obsolete equipment in a timely manner.

FINDING 8.23

The division implemented their first teacher laptop replacement cycle and budget to purchase new laptops for teachers and support personnel in July 2013. The division requested staff input in a 2013 needs assessment. Teachers identified the most pressing issue as the age of the then-current teacher laptops. Many laptop problems came about because they lacked the resources to run newer instructional applications, the response time was too slow, or batteries no longer worked and could not be replaced. The technology director obtained CIP operational funding to support the purchase of more than 100 teacher laptops.

COMMENDATION

FCPS has initiated a teacher laptop replacement cycle.

Food Services

This chapter presents the findings, commendations, and recommendations regarding the operations of the school nutrition program in Fluvanna County Public Schools (FCPS). The areas of review include:

- A. Organization and Staffing
- B. Policies, Procedures, and Compliance
- C. Planning and Budgeting
- D. Management and Facility Operations
- E. Qualifying Students for Free and Reduced-Price Meals
- F. Student Participation
- G. Nutrition and Nutrition Education Programs

School meal programs began with the *Child Nutrition Act of 1946*, which authorized the National School Lunch Program (NSLP) to “safeguard the health and well-being of the nation’s children.” The program, administered by the U.S. Department of Agriculture (USDA), is open to all public and nonprofit private schools, along with all residential childcare institutions.

FCPS participates in the NSLP, the School Breakfast Program (SBP), and the USDA Foods Program. Divisions that participate in these federal programs receive cash subsidies and donated commodities from the USDA for each eligible meal they serve. In return, the division must serve its students meals that meet federal guidelines for nutritional values, as well as offer free or reduced-price meals to eligible students.

Students in the lowest socioeconomic bracket qualify for free meals, while others qualify for reduced-price meals. All meals served according to federal guidelines receive some level of reimbursement, including those served to students who pay full price. School divisions do not receive federal reimbursement support for teacher or guest meals. The *Healthy Hunger-Free Kids Act (HHFKA)* of 2010 provides an additional six cents reimbursement per lunch to school divisions that are certified to be in compliance with the new meal patterns.

Exhibit 9.1 shows the applicable 2012-13 and 2013-14 federal reimbursement rates for breakfast and lunch. The rates listed include the additional six cents reimbursement, since FCPS has been certified to be in compliance.

**Exhibit 9.1
Federal per meal reimbursement rates**

	School Breakfast Program		National School Lunch Program	
	2012-13	2013-14	2012-13	2013-14
Free	\$1.55	\$1.58	\$2.92	\$2.99
Reduced Price	\$1.25	\$1.28	\$2.52	\$2.59
Paid	\$0.27	\$0.28	\$0.33	\$0.34

Source: USDA, 2013.

Effectiveness in school food service is measured by the level of service provided to school children and compliance with federal, state, and local policies. Efficiency is measured by the

division's cost per meal and staff productivity performance measures. The main goal of a successful food service operation is to provide nutritious meals to students every day school is in session, and to do so at a minimum of breakeven cost.

In total, the consulting team gave four commendations in this chapter:

- FCPS has closed campuses at all schools during meal times and accommodates all students with adequate time to eat and enough seating.
- FCPS is in compliance with the Virginia regulations governing competitive food sales in school lunchrooms and allows the revenue from the sale of beverages in the vending machines located in the lunchrooms to accrue to the food service program account.
- Food services will be the first department in FCPS to install My School Bucks and utilize its many benefits for parents to pay for and monitor their child's accounts.
- FCPS has met the requirements to be certified and in compliance with the requirements of the *HHFKA* and is receiving the additional 6-cent reimbursement.

The consulting team also made 10 recommendations in this chapter:

- Conduct an internal salary study for managers and cafeteria workers and adjust salaries accordingly.
- Increase the division's food service productivity.
- Develop a written charge policy and procedure that sets limits on the number and amount of charges.
- Develop a comprehensive policy and procedures manual for food service that covers all areas of food preparation and presentation.
- Develop an annual budget for food services with input from the food service supervisor. Use the budget as a management tool.
- Develop and provide the food service supervisor with profit and loss statements, budget variance reports, and other financial reports used regularly for financial management.
- Improve the financial footing of the food service program.
- Increase use of automation in FCPS kitchens.
- Develop outreach strategies at the division and school levels to ensure all eligible households submit applications for meal benefits.
- Develop strategies for increasing student participation rates for each school.

The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal impacts for those recommendations are not shown here.

Recommendation		One-Time Savings / (Cost)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
9.1	Conduct salary study.	\$0	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)	(\$42,770)
9.2	Increase food service productivity.	\$0	\$14,378	\$14,378	\$14,378	\$14,378	\$14,378	\$71,890
9.3	Develop meal charge policy.	\$0	\$10,000	\$4,000	\$4,000	\$4,000	\$4,000	\$26,000
9.9	Increase use of automation.	\$0	(\$400)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$4,400)
9.12	Improve meal application returns.	\$0	\$88,534	\$88,534	\$88,534	\$88,534	\$88,534	\$442,670
9.13	Increase student meal participation.	\$0	\$17,051	\$34,102	\$51,153	\$51,153	\$51,153	\$204,612

A. Organization and Staffing

The cost of staffing is typically nearly equal to the cost of food in a school nutrition program. The National Food Service Management Institute (NFSMI), a national organization federally funded at The University of Mississippi by a grant administered through the USDA, is dedicated to applied research, education and training, and technical assistance for child nutrition programs. Its Financial Management Information System recommends that program administration not exceed seven percent of total expenditures and that school labor and associated benefits not exceed 40 percent. However, there are many nuances associated with staff costs and staff productivity to be considered.

FCPS offers breakfast and lunch meals to students in all of its schools. The food service department also participates in the division's before and after extended education program by providing labor and storage space for food items. To accomplish this, it has the organizational structure shown in **Exhibit 9.2**. The food service supervisor manages one central office employee who serves as his assistant.

Each local food service cafeteria manager works 5.5-6.0 hours per day and reports to the local school principal and the food service supervisor. Managers also work as bus drivers to increase their daily hours worked for the division to 8.0. General food service cafeteria workers work between 4.5-7.0 hours per day. Half of this group also work as bus drivers or for the before and after extended education program to augment their daily hours worked.

**Exhibit 9.2
Food services organization**



Source: FCPS, January 2014.

FINDING 9.1

Salary ranges for cafeteria workers are comparable to those for peer divisions, but slightly lower than the average. Salary ranges for managers are lower than all other peer divisions and lower than the average. Interviews with managers and focus group sessions with cafeteria workers indicated a strong feeling that salaries were too low. There is inconsistency as well as a lack of equity in the salary schedules of managers and workers. Workers with longevity are able to earn more than beginning level managers. Elementary level managers with longevity are able to earn more than beginning level secondary managers. **Exhibit 9.3** shows salary ranges for managers and workers for FCPS and peer divisions. At the minimum and maximum for each position type, FCPS is lower than the peer division average.

**Exhibit 9.3
FCPS salary ranges compared to peer divisions**

School Division	Manager Salary Range	Worker Salary Range
King George County	\$ 13.69-23.58	\$ 7.83-13.50
Louisa County	\$ 11.60-21.36	\$ 9.56-17.57
Orange County	\$ 11.39-16.99	\$ 7.28-14.69
Warren County	\$ 11.09-19.83	\$ 10.00-15.77
Peer Division Average	\$ 11.45-19.48	\$ 8.58-14.97
Fluvanna County	\$ 9.49-15.66	\$ 8.26-13.35

Source: FCPS, January 2014.

Compensation appropriate for the responsibilities of a job is essential for retention of capable employees. When a department has both manager and worker employees, it becomes crucial to set salary schedules that provide an incentive for workers who would like to advance to the manager level. Salary ranges should reflect the differences between managing an elementary and secondary kitchen operation. In addition the schedules must ensure that workers are not able to earn more than a manager to prevent morale problems and a lack of interest in performing to position expectations.

RECOMMENDATION 9.1

Conduct an internal salary study for managers and cafeteria workers and adjust salaries accordingly.

The division should examine salaries and benefits for peer divisions as well as food service jobs within the community, then tabulate current salaries for managers and workers by position and number of years of experience. The division should establish separate salary ranges for managers and workers that are reflective of the differences in their duties. Finally, the division should adjust salaries for those positions that are not within the appropriate range for their position.

FISCAL IMPACT

The consulting team estimates that current FCPS finance and food services staff can complete the internal study in approximately 40 hours of work. The consulting team developed a fiscal impact by assuming a \$2.00 salary increase per hour for all managers. This will bring their pay in line with peer divisions. The total cost of adjusting salaries was determined based on the number of hours each manager is currently working for food services rather than the total hours worked for both food services and the transportation department. The impact on pay in the transportation department will depend on the specifics for each employee, as bus drivers are currently paid a daily rather than hourly rate.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Complete an internal salary study of food services positions.	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)

FINDING 9.2

The FCPS food service program lacks a staffing plan that establishes staffing levels for all schools based upon the Virginia Department of Education School Nutrition Program (SNP) goals for cafeteria staffing. In addition the department is not meeting recommended industry guidelines for staffing school kitchens.

The most common means of measuring employee productivity in school nutrition is the Meals per Labor Hour (MPLH) measure. This is calculated by dividing the number of meal equivalents produced and served in one day by the number of labor hours required to produce those meals.

A meal equivalent is the rate used to compare the amount of labor needed to prepare one lunch with the labor needed to prepare breakfasts, snacks, or a la carte items. The student-reimbursable lunch meal is the standard unit of conversion for determining meal



equivalents. School lunch is used as the basis of comparison because it is the main source of revenue, and it takes the most time to prepare. Therefore, all meal types are converted to meal equivalents for the purposes of measurement.

A meal equivalent is not a unit of production, but rather a calculation that allows a school nutrition manager to equate all meals and a la carte sales to a standard. The a la carte revenue is converted to a meal equivalent by dividing total revenue by a standard. The Virginia standard is composed of the federal free lunch reimbursement rate plus the state reimbursement per free meal plus the federal commodity value per meal. SNP uses the following conversions to meal equivalents:

- one lunch equates to one meal equivalent;
- two breakfasts equate to one meal equivalent; and
- a la carte sales of \$3.21 equate to one meal equivalent.

Industry best practice guidelines for MPLH staffing are shown in **Exhibit 9.4**. This chart provides MPLH guidelines for both conventional and convenience systems of food preparation. The consulting team found that FCPS was largely using a conventional system of food preparation.

Exhibit 9.4
Industry standard recommended meals per labor hour

Number of Meal Equivalents	Meals Per Labor Hour (MPLH)			
	Conventional System		Convenience System	
	Low Productivity	High Productivity	Low Productivity	High Productivity
Up to 100	8	10	10	12
101 - 150	9	11	11	13
151 - 200	10-11	12	12	14
202 - 250	12	14	14	15
251 - 300	13	15	15	16
301 - 400	14	16	16	18
401 - 500	14	17	18	19
501 - 600	15	17	18	19
601 - 700	16	18	19	20
701 - 800	17	19	20	22
801 - 900	18	20	21	23
901 up	19	21	22	23

Source: School Foodservice Management for the 21st Century, 5th Edition.

The MPLH per school is determined by dividing the total daily meal equivalent by the total daily labor hours at each school. **Exhibit 9.5** compares FCPS MPLH by school to the national standard. For comparison purposes, as the kitchens in FCPS are conventional kitchens, the national average for low productivity conventional system was used. VDOE SNP has established a range of 14 - 20 meals per labor hour as a standard goal.

Exhibit 9.5
FCPS meals per labor hour compared to national standards

Schools	Meal Equivalents	Daily Labor	MPLH	Standard MPLH	Variance
Carysbrook ES	395	34.0	11.60	14	2.4
Central ES	470	46.5	10.10	14	3.9
Fluvanna MS	543	34	16.00	15	(1.0)
Fluvanna HS	822	53.5	15.36	18	2.6
Excess Daily Labor Hours Division-wide					7.9

Source: FCPS food service department, January 2014.

Productivity in FCPS food service operations falls below both industry standards and SNP goals. When more meals are produced in an hour, the labor cost for each meal is reduced. As the balances in the exhibit indicate, three of the four Fluvanna school kitchens fall below SNP. Only Fluvanna Middle School was operating at an acceptable productivity level.

RECOMMENDATION 9.2

Increase the division’s food service productivity.

There are several ways to increase the productivity rate and produce more meals per hour of paid labor:

- Decrease the number of labor hours – the division could reduce staff at schools where staff hours are above national standard or decrease the number of staff-hours worked daily by adjusting work schedules.
- Increase the number of meal equivalents – to increase the number of meal equivalents, the division would need to increase student participation. Unless the food services staff is feeding all of the students, faculty, and staff that are in attendance every day, there are possibilities for increasing participation. The food service managers can use eligibility information to help determine where revenue can be increased. Every student who is enrolled and every adult who is employed by the school is a potential customer.
- Increase adult participation – not only does this help generate more revenue, but offers additional benefits as well. Student behavior and attitudes toward the food services program often improve when faculty participation improves.
- Increase marketing efforts – this should increase sales. This may include ongoing, regular activities throughout the school year and special events. Without marketing, parents and students are unaware of the benefits and opportunities of the breakfast and lunch programs and participation in these programs suffers. Adequate marketing helps to ensure more successful program operations.

FISCAL IMPACT

The division could pursue increased school nutrition productivity in a number of ways. Assuming the division chooses to achieve all the needed productivity gains by reducing labor hours, FCPS would need to reduce daily cafeteria labor hours by 7.9. Assuming 182 operating days and \$10.00 per labor hour, implementing this recommendation can generate annual savings of \$14,378. Of course, the division could choose to increase productivity in a

variety of ways, such as some reduction in labor hours and greater marketing efforts that result in increased student meal participation.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Improve food service productivity.	\$14,378	\$14,378	\$14,378	\$14,378	\$14,378

B. Policies, Procedures, and Compliance

The school board adopts policies that establish direction for the division; they set the goals, assign authority, and establish controls that make school governance and management possible. Procedures guide division employees on how to carry out policies in their individual departments. Effective policies and procedures that are widely understood are critical in a school nutrition operation. The absence of formal policies and procedures creates the potential for misinterpretation, omissions, and lack of consistency within the school department.

FINDING 9.3

FCPS does not have a policy for students who do not have money to pay for meals. There are no limits on the number of times a student or adult can charge a meal and no limit on the total amount that can be charged. The food service department has been instructed not to give students an alternate meal if they have a large number of charges.

At the end of 2012-13, there was \$15,343 in cumulative unpaid charges. Accumulated charges as of January 2014 were \$19,875. A large number of students, 904 students, or 25 percent of total enrollment, owed for meal charges at that time. The food services department is expected to absorb unpaid charges. The lack of a charge policy has a detrimental impact on the department’s financial status.

The School Nutrition Association states in their publication *School District Charge Policy and Procedures Components*:⁴¹

When parents fail to pay for meals, both the students and the school district are hurt. Particularly at a time when food and labor costs are escalating, it becomes even more critical to receive payment from families for meals while at the same time not generating ill will in the community. School districts are encouraged to have a district-wide policy in place to consistently address this circumstance.

When school nutrition directors were surveyed in 2008, most, 83 percent, reported having a formal or informal policy regarding charges.

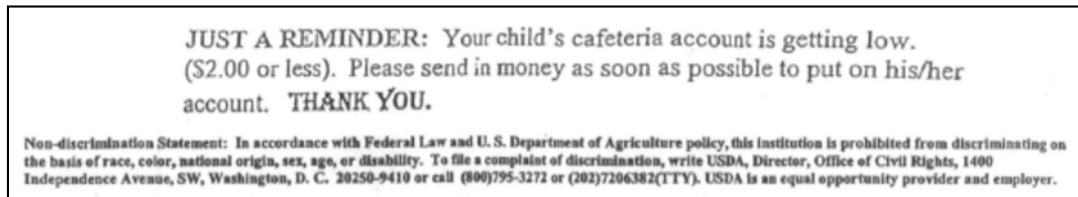
During interviews with cafeteria managers and workers, when asked the question “What could be improved in the food service department?” all brought up the excessive charges. One stated that there needs to be a better way to handle charges. She said this money could

⁴¹ School Nutrition Association. *School District Charge Policy and Procedures Components*, National Harbor, Maryland, 2008
[http://www.schoolnutrition.org/uploadedFiles/School_Nutrition/102_ResourceCenter/RunningYourProgram/FinancialManagement/ChargepolicyandprocedureFINAL\(1\).pdf](http://www.schoolnutrition.org/uploadedFiles/School_Nutrition/102_ResourceCenter/RunningYourProgram/FinancialManagement/ChargepolicyandprocedureFINAL(1).pdf).

be used to buy supplies for their operation. Another said she calls parents and one told her “I’m not going to pay it and there’s nothing you can do about it.” Another said when she called parents they were not aware their child had outstanding charges.

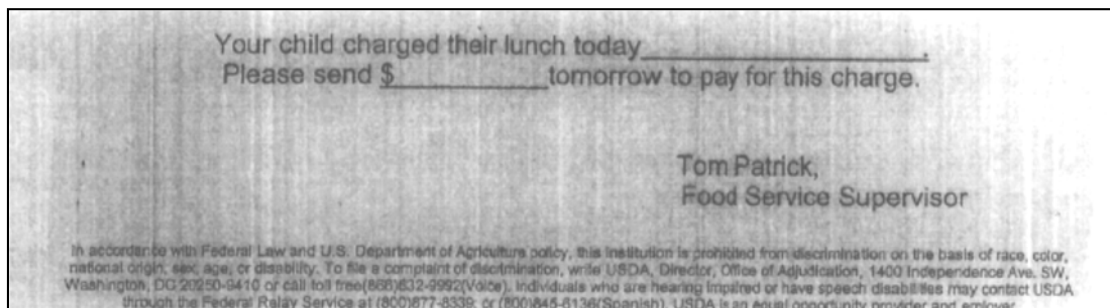
The department exerts tremendous effort to collect unpaid charges. Notices (**Exhibits 9.6** and **9.7**) are given to students to take home notifying parents their child’s account is getting low or their child charged today. One FCPS manager puts notices in with report cards.

Exhibit 9.6
Example of a Fluvanna low balance notice



Source: FCPS, January 2013.

Exhibit 9.7
Example of a Fluvanna daily charge notice



Source: FCPS, January 2013.

The Café Enterprise software the division uses has a program called My School Bucks that can address meal payment issues. Parents can receive automatic low balance alerts and set up recurring payments to their child’s account to replenish funds. Implementing these software enhancements has the potential to reduce meal charges and assist in collecting unpaid balances. Department staff has indicated intentions to implement this software in the near future.

RECOMMENDATION 9.3

Develop a written charge policy and procedure that sets limits on the number and amount of charges and implement My School Bucks.

As part of the policy and procedure, the division should:

- not allow charges for the purchase of a la carte items;
- not allow secondary school students or teachers to charge meals;
- implement features of Café Enterprise that provide parents a low balance alert and the

- ability to set up recurring payments;
- establish charge limits;
- serve an alternate meal after the charge limit has been reached;
- require staff customers to use a payroll deduction for payment;
- require principals, counselors, and food service staff to make contact with families that are delinquent;
- establish new disincentives for student non-payment, such as not allowing high school students with high charges to attend school dances; and
- develop a payment plan system to allow families with large charges to gradually work them down.

FISCAL IMPACT

Developing the meal charge policy will require minimal food service supervisor time, as a wealth of sample policies are available from other divisions. The division already owns the necessary Café Enterprise modules to implement My School Bucks. Based on past history it is estimated the department can increase revenue by approximately \$4,000 per year if the division establishes an effective policy to limit meal charges by students and establish a process to collect unpaid balances. In the first year, the division should expect to collect an additional \$6,000 in accumulated back charges.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop a meal charge policy.	\$10,000	\$4,000	\$4,000	\$4,000	\$4,000

FINDING 9.4

The division does not have a procedures manual for food services. Directions are communicated either verbally or through memos to kitchen staff. Managers do not have a written manual to use as a resource. During school observations the consulting team observed inconsistencies in numerous procedures. There are no training classes provided to food services staff. During interviews and focus groups, staff said they learn from others in an on-the-job process. During his interview, the supervisor stated one of his goals was to get systems, organization, and oversight in place. This can be achieved through the use of a procedures manual that establishes consistent standards and expectations for all schools.

The food service department needs clear direction that provides information on procedures and duties to be carried out within the division. This information is important to driving internal operations, as well as ensuring clear communication of school nutrition to the public. School food service is an operation that is highly visible, to both students and the community. It is also one of the division-level operations that generates and spends a substantial amount of funds. For these reasons, a division must ensure that rigorous standards are in place to guide the quality of service delivery and efficiency of financial operations. One method of strengthening the oversight of food service operations is through comprehensive written procedures. In their self-assessment tool *Keys to Excellence* the School Nutrition Association lists the following as a best practice, “Written policies and

procedures address key topics of operations and are implemented to ensure effective operation of the school nutrition program.”⁴²

RECOMMENDATION 9.4

Develop a comprehensive policy and procedures manual for food service that covers all areas of food preparation and presentation.

FCPS should include all aspects of the school food services program in their policy and procedures manual. An example of the table of contents of a comprehensive school food services procedures manual is provided in **Appendix B**. Each procedure included in the school nutrition procedures manual must be carefully evaluated for appropriateness and alignment with Virginia law and USDA regulations. The school nutrition supervisor should keep the manual updated in a timely manner. Updated pages should be given to managers at their meetings with instructions to remove the outdated information and insert the new pages. Alternatively, the manual could be maintained online so that cafeteria managers can get updates immediately.

FISCAL IMPACT

While there is no quantifiable cost to implementing this recommendation, it is estimated that approximately 80 hours of staff time would be necessary to develop a policy and procedures manual, divided between the food services supervisor and selected cafeteria managers.

FINDING 9.5

FCPS has a closed campus practice in all schools. Closed campus practice is when schools do not allow students to leave school for lunch. This practice can impact meal participation in a positive way.

All schools in FCPS have closed campuses during mealtimes. Although no formal board policy exists, it is an established practice among all schools. Closed campus policies can encourage increased meal participation and healthier eating habits. National studies in 2005 and 2006 found that approximately three-fourths of high schools have closed campuses.⁴³

The consulting team observed all schools during meal times. All had enough seats for all students in the meal period. In all schools, the line wait time was less than five minutes. In all schools, the meal period was long enough for the last student served to have 15 minutes to eat. It appears schools have the capacity and ability to accommodate this policy.

COMMENDATION

FCPS has closed campuses at all schools during meal times, accommodates all students with adequate time to eat, and provides enough seating.

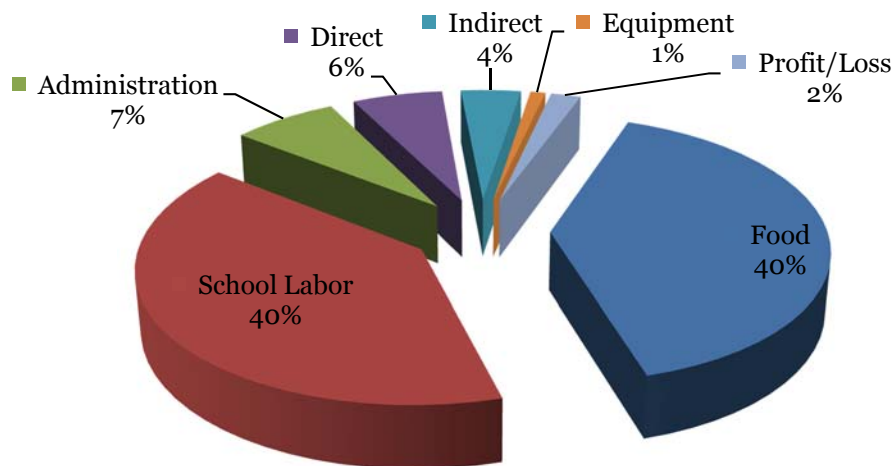
⁴² School Nutrition Association. Keys to Excellence: Standards of Practice for Nutrition Integrity, National Harbor, Maryland, 2012 <http://www.schoolnutrition.org/CareerEducation.aspx>

⁴³ Public Health Advocacy Institute. *Off the Map: Extracurricular School Food Open Campus Lunch*, Boston, Massachusetts, 2009.

C. Planning and Budgeting

As the passage of *HHFKA* amply demonstrated, change is a constant in school nutrition. New nutritional requirements at the federal level must be implemented in such a way that is appealing to local student tastes. The NFSMI recommends an ideal breakdown of expenditures (**Exhibit 9.8**) whereby school labor and food expenditures are each 40 percent. The remaining 20 percent of the budget is to be spent on administration, direct and indirect costs, and equipment.

Exhibit 9.8
Distribution of food services expenditures - industry standards



Source: NFSMI Financial Management Information System.

A budget is a plan that acts as a road map to carry out goals, with objectives and strategies to achieve those goals. Effective management is built upon sound planning and budgeting practices. A budget is used as a management tool to forecast revenue and expenditures and predict how much money will be in the fund balance at the end of the year.

FINDING 9.6

There is no budget developed for food services. The food service program is not included in the division's budget and does not participate in a budget development process. This inhibits the program's ability to plan and measure performance and maintain a fiscally sound meals program. There is no financial planning process that sets goals and objectives. The lack of a budget document has contributed to the department operating at a loss for many years. The supervisor indicated he and the finance director would like to develop a budget for the food service operation for 2014-15.

Budgets give management an idea of how well revenue goals are being met, whether or not expenditures are in line with predicted levels and how well controls are working. In their *Keys to Excellence* self-assessment tool The School Nutrition Association notes the following best practice:

Budgets are prepared that reflect the school nutrition program's financial goals and desired financial outcome...The projected annual budget is reconciled routinely with revenue and expenditure performance. Variances are justified and adjustments are made as necessary.

RECOMMENDATION 9.6

Develop an annual budget for food services with input from the food service supervisor. Use the budget as a management tool.

The division should:

- include the school food service supervisor in the budgeting and planning process;
- develop a comprehensive plan that contains clearly defined goals, with objectives and strategies to achieve those goals;
- develop steps, due dates, and timelines for accomplishing each step; and
- proactively work towards achieving goals utilizing the budget to monitor progress.

The food services department should:

- monitor revenue and expenditure line items on a monthly basis and compare to budget projections and previous month;
- communicate budgets goals, objectives and strategies with program staff at all levels; and
- make budget adjustments as needed or make changes in program operations to meet budget projections.

FISCAL IMPACT

The consulting team estimates the food service supervisor and finance director will need to spend 20 hours per year in developing an annual budget. Over time, this should result in a stronger financial position for the food service program.

FINDING 9.7

FCPS does not generate the necessary financial reports for monitoring and analysis of the food service program. There are no financial reports generated showing each individual school operation. The food service supervisor is not able to determine whether areas of revenue and expenditures are meeting industry standards and best practices.

The US Department of Education in the 2009 edition of *Financial Accounting for Local and State School Systems* states “The successful management of any large organization requires effective use of information.” They go on to say that “timely and accurate data can help decision makers focus on improvement strategies, budgetary control, and program evaluation.”

Best practices in food services dictate that income and expenditure projections are evaluated regularly and amended as needed. Financial and management practices are reviewed on an

ongoing basis. The Council of Great City Schools, in developing performance benchmarks for all school operations, identified several metrics that are considered “power indicators” on the health of a food service program, with the first two requiring accurate and timely financial data:

- total cost per revenue;
- fund balance as a percent of revenue;
- breakfast participation rate; and
- lunch participation rate.⁴⁴

RECOMMENDATION 9.7

Develop and provide the food service supervisor with profit and loss statements, budget variance reports, and other financial reports used regularly for financial management.

Many student nutrition programs prepare routine reports that include the following:

- the financial position of the food services operation, which includes a statement of revenue and expenditures, balance sheet, budget variances, and fund balance;
- operating ratio reports that show cost items as a percent of total revenue;
- cost of meals reports that include plate cost, food cost/meal, labor cost/meal, and commodity value/meal;
- participation rate reports that show participation by program, eligibility, and category;
- productivity reports that show meals per labor hour and revenue to variable costs; and
- site level statement of revenue and expenditure reports.

FISCAL IMPACT

Once the finance director and food service supervisor identify the format for the reports, generating regular reports will require minimal staff time. The division may develop some of the reports as automatic output from the financial software system.

FINDING 9.8

The FCPS food service department has had a history of operating at a loss. It has not met the USDA suggested goal of maintaining a three month operating balance to ensure the food service program can continue to provide meals to students. As of December 2013, the department had year-to-date revenues of \$531,396 and expenditures of \$519,118, with a difference of \$12,278. The financial status of the department is beginning to move in a

⁴⁴ *Managing for Results in America's Great City Schools*. Council of the Great City Schools. (2011, October). Retrieved from: http://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/81/Managing%20for%20Results_2011.pdf

positive direction, but this is a new development. As shown in **Exhibit 9.9**, the department has lost money in four of the past five years.

Exhibit 9.9
Trend in FCPS food service revenue and expenditures

Food Service Fund	2008-09	2009-10	2010-11	2011-12	2012-13
Total Revenues	\$1,173,537	\$1,194,988	\$1,168,965	\$1,300,206	\$1,268,634
Total Expenditures	\$1,242,700	\$1,236,670	\$1,212,329	\$1,322,783	\$1,197,997
Difference	(\$70,637)	(\$41,682)	(\$43,364)	(\$32,577)	\$70,637

Source: FCPS Finance Department, January 2014.

A new food service supervisor started managing the program in July 2012. He has strong financial experience and abilities and should be able to continue to turn around the financial position of the department so it operates as a breakeven or better program.

School food service programs are one of the few departments within a division to generate revenue. Sound business practices dictate that on an annual basis the level of revenue be sufficient to cover all the expenditures of the program as well as generate a fund balance to cover increases in food and labor costs for the next school year and ensure the division will be able to provide meals to all students. If the food service program is not financially self-sufficient, it will require support from the general fund, diverting those dollars from things like classroom expenses.

RECOMMENDATION 9.8

Continue to improve the financial footing of the food service program.

The food service supervisor should seek to operate the program at a level where revenues are sufficient to meet expenditures. To do this, the supervisor should analyze what conditions are most impacting profitability, then implement appropriate changes and improvements. The department should have a goal of maintaining a fund balance equal to three months' operating costs.

FISCAL IMPACT

The amount of staff time required to implement this recommendation cannot be estimated, as it will depend on the strategies the food service supervisor uses to improve the financial footing of the program. Some strategies may involve costs beyond staff time, such as the costs that would be required to develop marketing materials for use in cafeterias.

D. Management and Facility Operations

School nutrition facilities must be well-maintained, cleaned, and repaired. Deferred maintenance should not be tolerated. They must be sufficient to serve a campus student body without excessive numbers of lunch periods. Efficiency of kitchens and serving lines is a critical factor.

A key factor in kitchen staff productivity is the proper use of time-saving food preparation equipment. A further key element in long-term financial stability within a student nutrition

program is adequate and proper maintenance of that equipment, as well as timely replacement and upgrading as warranted.

FINDING 9.9

FCPS has an automated point-of-sale (POS) in all school cafeterias; however, there is no computer in the kitchen offices. The primary purpose of a POS is to record meal sale transactions. In FCPS, because of a lack of other technology, managers are also using the POS computer on the serving line to read email communications from the central office and request online leaves.

There is no automated process for ordering, inventory, and payroll. Managers create handwritten order and inventory sheets that are brought to the food service office and tabulated by the food service assistant. An excessive amount of time is spent transporting paper data and performing tabulations. Nutrient analysis and menu costing are computed by manual methods.

Food service programs must meet strict standards of accountability. Federal and state requirements dictate a great number of data reports be prepared to demonstrate accountability and fiscal responsibility. Some of the benefits of automation in a food service program are increased efficiency and speed of data handling, more timely report processing, more reliable information, efficient and updated nutrient analysis, menu costing tied to orders and inventory, and greater ability for data analysis.

RECOMMENDATION 9.9

Increase use of automation in FCPS kitchens.

The department should provide a laptop for each school kitchen, then automate the order and inventory processes and eliminate the steps of handwriting orders and inventory. As the financial status of the department improves, the supervisor should continue to invest in technologies and applications that improve efficiency and effectiveness.

FISCAL IMPACT

The director of technology has indicated his department has some used laptop computers that he could load with Windows 7 and provide to the food service department at a cost of \$100 each. In future years, the department will need to budget for replacing these laptops with newer models and updated software. The consulting team recommends the food service department budget at least \$1,000 annually in future years for technology enhancements, including the purchase of software modules to provide automated reports.

Recommendation	2013-14	2014-15	2015-16	2016-17	2017-18
Provide a laptop for each school kitchen.	(\$400)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)

FINDING 9.10

During visits to schools, all schools were in compliance with the Virginia law on competitive food sales. The Virginia law states there can be no competitive food sales between 6:00 a.m. and the end of breakfast and during all of the lunch period.



The consulting team found beverage vending machines in all school cafeterias. The machines are filled by the food service staff and the revenues are credited to the food service fund. These machines are available to students during meal times. The sale of vended items is in compliance with the competitive foods sales laws since the revenue accrues to the food service program.

COMMENDATION

FCPS is in compliance with the Virginia regulations governing competitive food sales in school lunchrooms and allows the revenue from the sale of beverages in the vending machines located in the lunchrooms to accrue to the food service program account.

FINDING 9.11

FCPS is installing My School Bucks, which is a program that allows parents to make payments online. This will allow parents to pay for their child's meals online, view account balances and item history, track their child's cafeteria purchases, and receive low balance alerts. Using this technology will reduce the amount of cash handling and could result in decreased charges as parents will be able to more closely monitor their child's accounts. Food services will be the first department in the division to use this technology, but it can ultimately be used for any school related fee, such as school field trips and lab fees.

The use of cashless systems to purchase goods and services is common to most households. The practice of sending cash or checks with a student to pay for school meals is an antiquated system that can result in a student losing the money, using it for other purposes, or increased charges due to a parent forgetting to send money. According to the School Nutrition Association, the prevalence of school divisions using internet-based payment methods rose to 63.8 percent in 2009.

COMMENDATION

Food services will be the first department in FCPS to install My School Bucks and utilize its many benefits for parents to pay for and monitor their child's accounts.

E. Qualifying Students for Free and Reduced-Price Meals

The National School Lunch Program is an appropriated entitlement to all eligible students living in the United States regardless of citizenship status. Students are entitled to free lunches if their families' incomes are below 130 percent of the annual income poverty level guidelines established by the US Department of Health and Human Services and updated annually by the Census Bureau. Children who are members of households receiving food stamp benefits or cash assistance through the Temporary Assistance for Needy Families block grant, as well as homeless, runaway, and migrant children also qualify for free meals.

Students with family incomes below 185 percent of poverty are eligible for a reduced price lunch. Schools cannot charge children who receive reduced price lunches more than 40 cents per meal, but each school food authority sets the exact student contribution level independently. Students who do not qualify for a free or reduced price lunch can purchase slightly subsidized meals, but these lunches are considered "paid" because the student

shoulders most of the cost. In 2013, the lunch program subsidized each “paid” meal between 28 and 34 cents to offset administrative costs.

Alternatively, children can be automatically enrolled through a process known as “direct certification.” Under the direct certification process, state agencies or school food authorities obtain lists of families enrolled in the Food Stamp program or Temporary Assistance for Needy Families (i.e. welfare) program and match those lists with the names of students enrolled in schools the agency serves. As of 2008-09, all school divisions are required to directly certify students enrolled in the Food Stamp program. This change has increased access to free and reduced lunches and limited the potential for error or over enrollment by automatically enrolling students rather than relying on parent applications.

FCPS provides meal applications to parents at registration by putting them in their student registration packets. Applications are also available in school offices and in the cafeterias. Households with expiring applications from the previous year are mailed new applications via US mail with a stamped return envelope.

Family applications are processed in the central office utilizing the Café Enterprise cafeteria management software. The software assigns the free, reduced, or paid status to applications based on the data information inputted by the food service assistant. The software also generates the approval or denial letters, which are put in the US mail to parents. Applications are maintained in the central office and additional applications or changes in status occur on an as needed basis throughout the school year.

The central office completes the process known as verification utilizing the information generated by the Café Enterprise software. Verification is the confirmation of eligibility for free and reduced price meals under the NSLP and SBP. Verification is only required when eligibility is determined through the application process, not through direct certification.

Of the 3,775 students in FCPS, 885 (23.4%), are eligible for free meals and 231 (6.1%) are eligible for reduced price meals, for a total free and reduced eligibility of 1,116 (29.6%). **Exhibit 9.10** compares FCPS free and reduced eligibility to peer divisions. As shown, FCPS’ approved eligibility is lower than the average of peer divisions, with only one division having fewer eligible students. Additionally, the FCPS eligibility percentage is below the national average of 61.6 percent.

Exhibit 9.10
2012-13 national school lunch program free and reduced price eligibility report

Division	Member-ship	Free #	Free %	Reduced #	Reduced %	Total F/R #	Total F/R %
Greene County	3,056	921	30.1%	224	7.3%	1,145	37.5%
King George County	4,249	1,149	27.0%	161	3.8%	1,310	30.8%
Louisa County	4,794	1,764	36.8%	439	9.2%	2,203	45.9%
Madison County	1,818	576	31.7%	122	6.7%	698	38.4%
Orange County	5,047	1,855	36.8%	449	8.9%	2,304	45.7%
Warren County	5,495	1,874	34.1%	323	5.9%	2,197	39.9%
Peer Division Average	4,033	1,289	31.4%	278	6.8%	1,567	38.3%
Fluvanna County	3,375	885	23.4%	231	6.1%	1,116	29.6%

Source: VDOE, 2014.

FINDING 9.12

FCPS has the lowest rate of students approved eligible for free and reduced meals among peer divisions. It is also lower than the Virginia average statewide. Participation rates can be negatively affected if households that would be eligible for meal benefits do not apply.

The department is using the direct certification method to qualify eligible students. It has a good system of distributing applications to parents and processing applications that it receives. The lack of a charge policy, as discussed in a previous finding, could be a contributing factor to parents deciding not to apply for meal benefits.

Exhibit 9.11 compares FCPS to peer divisions and the Commonwealth on free/reduced price meal eligibility. FCPS has a small number of students eligible for free or reduced priced meals as compared to the Commonwealth overall and falls in the bottom range as compared to peer divisions. Considering each division's free/reduced percentage and its composite index, all but one of the peers has a smaller gap between the two. Although the Commonwealth average for free/reduced eligibility is nearly identical to the composite index, Fluvanna's eligibility is almost 10 percentage points below its composite index.

Exhibit 9.11
Comparison of free and reduced eligibility

Division	Free Eligibility	Reduced Eligibility	Total Free and Reduced Eligibility	Composite Index (CI)	CI to Lunch Eligibility
Greene County	30.1%	7.3%	37.5%	37.2%	(0.3%)
King George County	27.0%	3.8%	30.8%	37.9%	7.1%
Louisa County	36.8%	9.2%	45.9%	56.6%	10.7%
Madison County	31.7%	6.7%	38.4%	44.9%	6.5%
Orange County	36.8%	8.9%	45.7%	38.4%	(7.3%)
Warren County	34.1%	5.9%	39.9%	38.9%	(1.0%)
Peer Division Average	31.4%	6.8%	38.2%	42.3%	4.1%
Commonwealth of Virginia	33.4%	6.7%	40.1%	39.9%	(0.2%)
Fluvanna County	23.4%	6.1%	29.6%	39.2%	9.6%

Source: VDOE, 2014.

RECOMMENDATION 9.12

Develop outreach strategies at the division and school levels to ensure all eligible households submit applications for meal benefits.

The food service supervisor should determine whether barriers exist that are preventing parents from applying for benefits. The division should implement a marketing campaign to provide more information on how the meal application and eligibility program works. Information could be provided to local newspapers, put on the FCPS website and put in each school's newsletter. Managers should work with their school principals and social workers to ensure all eligible parents return applications.

FISCAL IMPACT

Given the peer division and statewide data, it is reasonable to assume that greater efforts to get families qualified for meal benefits would result in about 350 additional students qualifying. Assuming all qualify for free meals and that they select a reimbursable lunch each day, the division would realize an additional \$177,068 in revenue annually, beginning in 2016-17. The consulting team anticipates that it will take several years to achieve this level of return, so the fiscal impact is estimated as increasing over time. This fiscal impact assumes 50 additional students the first year, 175 the second year, and 350 each year thereafter.

$$350 \text{ additional free-qualified students} \times \$2.99 \text{ reimbursement for lunch} \\ \times 180 \text{ attendance days} \times 0.94 \text{ attendance rate}$$

The actual amount of additional income realized will vary based on the number of additional students approved free or reduced and the changes in USDA reimbursement rates each year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Improve meal application returns.	\$25,295	\$88,534	\$177,068	\$177,068	\$177,068

F. Student Participation

One of the basic measures of food service operations is student meal participation. All meals served according to federal guidelines receive some level of reimbursement, including those served to students who pay full price. Student participation in a division's meal programs is directly impacted by a variety of operational factors, including student access to food, food quality and variety, alternatives to the school meal, and cafeteria environment.

The meal changes required by *HHFKA* and their impact on student participation have been discussed at the national level. The School Nutrition Association (SNA) tracked lunch and breakfast participation nationally between September 2012 and March 2013. It reported a 3.2 percent decrease in average lunch participation but a 2.1 percent increase in breakfast participation, compared to the same time period from 2011-12. These data do not clearly point to *HHFKA* changes as depressing student meal participation.

FINDING 9.13

Overall meal participation is low for both breakfast and lunch. This could be due to a variety of factors.

Because participation rates are highly variable across the nation, depending greatly on local circumstances and management, only a few rules of thumb exist for assessing student meal participation. In 2000, one of the most widely used school food service program management manuals published industry standards for student lunch participation. These are shown in **Exhibit 9.12**. In divisions with low proportions of free and reduced-price qualifying students, one would expect perhaps lower rates of participation, as those students have relatively more alternatives to the school lunch meal. FCPS has closed campuses so one would expect participation rates in the secondary schools to be slightly higher than other divisions with open campuses.

Exhibit 9.12
Industry standard lunch participation rates

School Level	Industry Standard
Elementary	70%
Middle	60%
High	50%

Source: Pannell-Martin, School Foodservice Management, 4th Edition, 2000.

Exhibit 9.13 shows average daily participation (ADP) rates for FCPS. All of Fluvanna's schools are lower than industry standards of lunch participation. According to a report on nutrition assistance programs, published by The National Data Bank (NDB), USDA/Food and Nutrition Services, FCPS' participation rate is lower than the 2011 national average of 67.2 percent by 22.9 percentage points.

Exhibit 9.13
2013 FCPS lunch participation rates compared to average daily attendance

School	ADA	% Free of ADA	% Reduced of ADA	% Paid of ADA	% of ADA Participating
Carysbrook ES	557	39.6%	11.5%	49.3%	48.5%
Central ES	724	49.9%	9.2%	40.9%	46.5%
Fluvanna MS	803	44.4%	12.4%	42.8%	48.2%
Fluvanna HS	1,356	35.9%	7.1%	56.9%	39.2%
Total	3,440	41.8%	9.6%	48.5%	44.3%

Source: FCPS Food Services and VDOE, 2014.

Exhibit 9-14 compares FCPS' lunch participation rates with the peer divisions. As shown, FCPS had a lower participation rate than the peer average, but a higher overall participation rate than some of the peers.

Exhibit 9.14
Comparison of school lunch participation
October 2012

Division	Membership	% Free	% Reduced	% Paid	% Total Participation
Greene County	3,056	22.5%	4.7%	20.8%	48.1%
King George County	4,249	19.1%	2.4%	23.5%	45.0%
Louisa County	4,794	28.5%	6.5%	21.6%	56.6%
Madison County	1,818	24.9%	5.1%	32.0%	61.9%
Orange County	5,047	24.2%	5.1%	21.3%	50.6%
Warren County	5,495	27.0%	4.6%	30.0%	61.6%
Peer Division Average	4,033	24.9%	4.8%	24.7%	54.4%
Fluvanna County	3,375	19.2%	4.6%	26.2%	50.0%

Source: VDOE, 2014.

The consulting team found a number of areas of concern that could be affecting participation rates. During some meal periods, schools did not have a selection of fresh fruits and vegetables available as a choice. When fresh fruit or vegetables were offered, they were not presented attractively. **Exhibit 9.15** shows how a selection of fresh vegetables was presented at Fluvanna High School while **Exhibit 9.16** shows a more attractive presentation in another school division.

Exhibit 9.15
Fresh vegetable presentation at
Fluvanna High School



Source: Prismatic, January 2014.

Exhibit 9.16
Sample fresh display from another
school division



Source: Prismatic, January 2014.

During interviews with managers and workers, several indicated their students love fresh fruit. The review team observed a large number of students selecting the fresh vegetable salad at both the elementary and secondary levels. One manager stated they never receive bananas to serve and they received fresh grapes in the fall but not year round. The *Healthy Hunger Free Kids Act (HHFKA)* sets new requirements for fresh fruits and vegetables by requiring larger total portions and weekly requirements for color offerings. Presenting a wide and varied assortment of fresh items will encourage students to select them and could encourage parents and students to participate in the school-provided meal program.

The consulting team observed a lack of consistency in how packets of condiments were presented. In some Fluvanna schools they were left in the cardboard boxes in which they were packed (**Exhibit 9.17**). Other Fluvanna schools took them out of the boxes and displayed them in a more attractive manner (**Exhibit 9.18**). The latter approach is similar to presentation in fast serve restaurants, is less institutional-looking and more visually stimulating. Even presentation of condiments can affect participation.

Exhibit 9.17
Display of condiment packets at
Fluvanna Middle School



Source: Prismatic, January 2014.

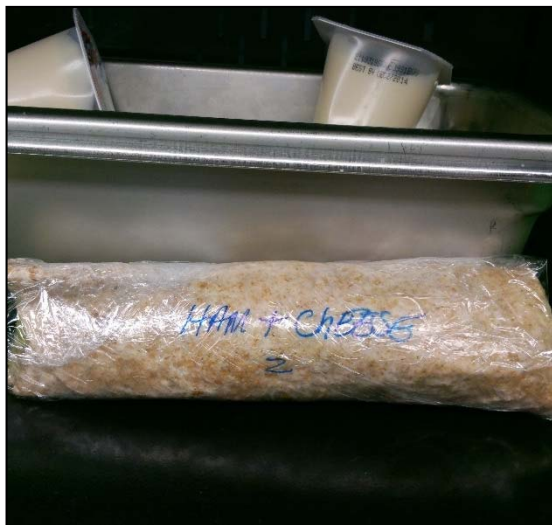
Exhibit 9.18
Display of condiment packets at
Fluvanna Central Elementary School



Source: Prismatic, January 2014.

According to the supervisor, the high school used to have a made-to-order wrap station. When that was discontinued, staff continued to prepare wraps and offer them as a choice on the serving line. However, they were not presented in an attractive way. **Exhibits 9.19** and **9.20** shows the wraps and sandwiches as they were presented on the day of observation. Examples shown in **Exhibits 9.21** and **9.22** demonstrate appealing wrap and salad offerings. Using more attractive packaging has the potential to result in increased participation.

Exhibit 9.19
Display of wraps at Fluvanna
High School



Source: Prismatic, January 2014.

Exhibit 9.20
Display of sandwiches at Fluvanna
High School



Source: Prismatic, January 2014.

Exhibit 9.21
Sample display from another school
division of an attractive wrap
presentation



Source: Prismatic, January 2014.

Exhibit 9.22
Sample display from another school
division of an attractive salad
presentation



Source: Prismatic, January 2014.

On the day of observation, the consulting team found only one entrée choice at Central Elementary School and only two at Fluvanna Middle School. Offering a variety of entrée choices provides the opportunity for students to find some items they will like. Limited choices results in students preferring to bring meals from home at lunchtime if they do not like the entrée offered. The number of entrée choices should be scaled according to grade level with fewer at the elementary level and more at the secondary level.

RECOMMENDATION 9.13

Develop strategies for increasing student participation rates for each school.

The division should:

- conduct surveys of parents to determine why their students are not participating;
- set up focus groups of students at all grade levels to evaluate new menu items and recipes and evaluate current menu offerings;
- develop procedures and training for managers to conduct student taste tests and conduct these at all schools;
- set up procedures to monitor plate waste at all schools and tabulate results to determine items needing to be taken off the menu;
- offer more choices of fruits and vegetables for every meal with at least one fresh option available to all students at every meal;
- offer a variety of entrée choices at elementary and secondary levels;
- pilot and market a fresh fruit/vegetable bar and monitor participation levels to determine possibility of replication at other schools;

- pilot a condiment bar with lettuce, tomato, pickles and other condiments for sandwiches at the secondary schools;
- develop standards of excellence for menu item presentation and use attractive packaging;
- use the division website, local newspapers, and school newsletters to communicate changes and positive messages about the school meals program;
- develop a marketing plan with input from students and managers; and
- provide customer service training for managers and staff.

There are many resources available to help with these efforts. The Smarter Lunchrooms Movement at the Cornell Center for Behavioral Economics in Child Nutrition Programs has a variety of training materials, best practices, research articles, and self-assessment forms. The School Nutrition Association has a self-assessment section on marketing in their *Keys to Excellence*. NFSMI has a publication *Best Practices for Marketing the School Nutrition Program* as well as training courses for staff such as *Focus on the Customer*. USDA’s Team Nutrition has a toolkit *Fruits and Vegetables Galore* which contains a workbook titled *Meal Appeal Attracting Customers*.

FISCAL IMPACT

Implementing this recommendation should be an area of significant focus for the food service supervisor and should result in increased participation. In particular, the division should focus on increasing elementary lunch participation rates as well as all breakfast participation rates.

Currently, less than half of the elementary students eligible for free meals participate in the program for lunch each day. Improving by just an additional 100 students who are eligible for free meals would result in increased revenues of \$51,153 annually:

$$100 \text{ additional students participating} \times 0.94 \text{ attendance factor} \\ \times \$2.99 \text{ federal reimbursement} \times 180 \text{ school days}$$

Based on observations in other divisions, and data currently developing nationally, the consulting team strongly encourages FCPS to consider offering free meals to its students who only qualify for reduced-price meals. The experiences of other divisions, including Fairfax County Public Schools in Virginia, indicate that participation among reduced-price eligible students greatly increases if they can participate for free. The nutritional benefit to this student group would be important and the federal reimbursement of \$2.59 per meal served would help offset FCPS absorbing the 40 cent per meal cost.

The consulting team anticipates that it will take several years to achieve this level of participation, so the fiscal impact is estimated as increasing over time.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Increase student meal participation.	\$17,051	\$34,102	\$51,153	\$51,153	\$51,153

F. Nutrition and Nutrition Education Programs

In a study conducted by the Youth Expanded Food and Nutrition Education Program in 2010⁴⁵, research in school-based nutrition education has found that change in nutrition-related behaviors requires intense, long-term interventions; the amount of exposure to nutrition education, while adequate to bring about changes in knowledge, may not be adequate to influence children's behavior. In recent years, the role of home and school environments in influencing children's dietary behavior has been extensively studied (Cullen et al., 2004; French, Story, Fulkerson, & Gerlach, 2003) and conclusions state lack of change in nutrition-related behaviors could be due to children having little control over their nutritional environments. Therefore, nutrition professionals have an opportunity to influence student consumption patterns.

The *Healthy, Hunger-Free Kids Act of 2010 (HFFKA)* provides for sweeping changes to school food service programs. In addition to changes in program administration, the *HFFKA* also requires broad changes to the menus both in nutritional requirements and menu components. **Exhibits 9.23** and **9.24** provide the nutritional changes required under *HFFKA*. As shown, both the breakfast and lunch menus must offer more fruits and vegetables. Milk must be low fat or fat-free. Sodium levels must be reduced and trans fats must be eliminated. The implementation timeline for these changes is shown in **Exhibit 9.25**. The bulk of the changes is required by 2014-15, but the final sodium reduction is not required until 2022-23.

The *HFFKA* provides an additional 6-cent per lunch reimbursement to school divisions that are certified to be in compliance with the new meal patterns. The increased reimbursement, a significant investment in improving the quality of school meals, is provided to school divisions once they meet the new meal patterns published in the final rule on January 26, 2012. Funding became available to school divisions starting October 1, 2012.

⁴⁵ Florida Parents Join Students in Voting on Healthy New Menu Options - Tray Talk, School Nutrition Association (January 2013).

Exhibit 9.23
Summary of changes in nutritional requirements for breakfast

Item	Old Requirement	New Requirement		
Fruit	1/2 cup per day (vegetable substitution allowed)	1 cup per day (vegetable substitution allowed) Quantity required for 2014-15. Students are allowed to select 1/2 cup of fruit under OVS.		
Grains and Meat/Meat Alternate	2 cups of grains or 2 cups of meat/meat alternates or 1 cup of each per day	For grains, daily minimum of 1 ounce equivalent minimum per day; weekly minimum ranges that vary by grade: <ul style="list-style-type: none"> • K-5: 7-10 ounces • 6-8: 8-10 ounces • 9-12: 9-10 ounces May substitute meat/meat alternates after minimum daily requirement for grains is met		
Whole Grains	Encouraged	At least half of the grains to be whole grain-rich beginning July 1, 2013. Beginning July 1, 2014, all grains must be whole grain rich.		
Milk	1 cup	1 cup, 1% (unflavored) fat-free (unflavored/flavored)		
Sodium	Reduce, no set targets	Target 1: 2014-15	Target 2: 2017-18	Target 3: 2022-23
		K-5: ≤ 540 mg 6-8: ≤ 600 mg 9-12: ≤ 640 mg	K-5: ≤ 485 mg 6-8: ≤ 535 mg 9-12: ≤ 570 mg	K-5: ≤ 430 mg 6-8: ≤ 470 mg 9-12: ≤ 500 mg
Calories	Varied, depending on menu planning system in use, but only minimums provided	Only food-based menu planning allowed with these calorie guidelines: <ul style="list-style-type: none"> • K-5: 350-500 calories • 6-8: 400-550 calories • 9-12: 450-600 calories 		
Trans Fat	No limit	Zero grams per serving (nutrition label)		

Source: USDA, January 2012.

Exhibit 9.24
Summary of changes in nutritional requirements for lunch

Item	Old Requirement	New Requirement		
Fruit and Vegetables	1/2 - 3/4 cup of fruit and vegetables combined per day	3/4 - 1 cup of vegetables plus 1/2 - 1 cup of fruit per day		
Vegetables	No specifications as to type of vegetable	Weekly requirements for: <ul style="list-style-type: none"> • dark green • red/orange • beans/peas • starchy • other 		
Meat/Meat Alternate	1.5 – 2 ounce equivalents (daily minimum)	K-5: 1 oz. eq. min. daily (8-10 oz. weekly) 6-8: 1 oz. eq. min. daily (9-10 oz. weekly) 9-12: 2 oz. eq. min. daily (10-12 oz. weekly)		
Grains	8 servings per week (min. of 1 serving per day)	K-5: 1 oz. eq. min. daily (8-9 oz. weekly) 6-8: 1 oz. eq. min. daily (8-10 oz. weekly) 9-12: 2 oz. eq. min. daily (10-12 oz. weekly)		
Whole Grains	Encouraged	At least half of the grains to be whole grain-rich beginning July 1, 2012. Beginning July 1, 2014, all grains must be whole grain-rich.		
Milk	1 cup	1 cup, 1% (unflavored) fat-free (unflavored/flavored)		
Sodium	Reduce, no set targets	Target 1: 2014-15	Target 2: 2017-18	Target 3: 2022-23
		K-5: ≤ 1230 mg 6-8: ≤ 1360 mg 9-12: ≤ 1420 mg	K-5: ≤ 935 mg 6-8: ≤ 1035 mg 9-12: ≤ 1080 mg	K-5: ≤ 640 mg 6-8: ≤ 710 mg 9-12: ≤ 740 mg
Calories	Varied, depending on menu planning system in use, but only minimums provided	Only food-based menu planning allowed with these calorie guidelines: <ul style="list-style-type: none"> • K-5: 550-650 calories • 6-8: 600-700 calories • 9-12: 750-850 calories 		
Trans Fat	No limit	Zero grams per serving (nutrition label)		

Source: USDA, January 2012.

Exhibit 9.25
Implementation timeline for compliance with *Healthy, Hunger-Free Kids Act*

New Requirements	Implementation (School Year) for NSLP (L) and SBP (B)						
	12-13	13-14	14-15	15-16	16-17	17-18	22-23
Fruits Component							
Offer fruit daily	L						
Fruit quantity increase to 5 cups/week (minimum 1 cup/day)			B				
Vegetable Component							
Offer vegetables subgroups weekly	L						
Grains Component							
Half of grains must be whole grain-rich	L	B					
All grains must be whole-grain rich			L, B				
Offer weekly grains ranges	L	B					
Meats/Meat Alternates Component							
Offer weekly meats/meat alternates ranges (daily min.)	L						
Milk Component							
Offer only fat-free (unflavored or flavored) and low-fat (unflavored) milk	L, B						
Dietary Specifications (to be met on average over a week)							
Calorie ranges	L	B					
Saturated fat limit (no change)	L, B						
Sodium Targets <ul style="list-style-type: none"> • Target 1 • Target 2 • Final target 			L, B			L, B	L, B
Zero grams of <u>trans</u> fat per portion	L	B					
Menu Planning							
A single FBMP approach	L	B					
Age-Grade Groups							
Establish age/grade groups: K-5, 6-8, 9-12	L	B					
Offer vs. Serve							
Reimbursable meals must contain a fruit or vegetable (1/2 cup minimum)	L		B				
Monitoring							
3-year administrative review cycle		L, B					
Conduct weighted nutrient analysis on 1 week of menus	L	B					

Note: "B" indicates deadline for breakfast; "L" indicates deadline for lunch
Source: USDA, compiled by Prismatic, 2014.

FINDING 9.14

The division performs nutritional analysis on all its menus. Menus meet nutritional and meal component requirements as prescribed by the *Healthy Hunger-Free Kids Act*.

FCPS does not utilize computer software that provides a nutritional analysis of menus. The food service supervisor completed a manual nutritional analysis of menus which is a time consuming and lengthy process. His efforts resulted in the VDOE determining the food

service menus met the requirements to be certified and for the department to receive an additional 6-cent reimbursement per meal.

COMMENDATION

FCPS has met the requirements to be certified and in compliance with the requirements of the *HHFKA* and is receiving the additional 6-cent reimbursement.

A Facilities Use and Management

Detailed Steps for Master Plan Development for Fluvanna County Public Schools

A five-year facilities master plan should be a living document that guides facilities planning, design and construction for FCPS. It should be:

- officially monitored, updated, and distributed by the chief financial officer via the superintendent to the school board and the board of supervisors. Only planning actions compatible with this plan document may be initiated. If plans contrary to the document or not contained in the document are contemplated, then the plan must be amended and approved by the school board and the county board of supervisors;
- completed in time for the 2014-15 budget preparation, containing an immediate funding request for such items as new construction, renovation, additions, other capital improvement projects, and preventive as well as reactive maintenance. The funding request should also contain a forecast of potential needs for the remaining ten-year period. Thus the plan has details for years 1-5 and a broader forecast for years 6-10; and
- extended each year to cover a subsequent five year period (Example: the following year, it becomes the Five-Year Capital Facilities Plan 2015-2019.). This type of plan updating activity should become mandatory to keep the plan up-to-date, and to keep it useful as a guide document. The statutorily required capital improvement plan should be wholly incorporated in, and fully coordinated with, this effort.

Prototype Plan Description

The five-year facilities master plan should address the following:

- the strategy required to meet the need for facility improvement and for the capital investments necessary to support existing and projected educational needs;
- the educational goals of FCPS to satisfy the needs of students, parents, educators, administrative staff and the community;
- realistic plans to help FCPS provide for its short- and long-range facilities needs; and
- realistic spending plans on maintenance amounting to a minimum of two percent of current replacement value of all FCPS facilities.

The planning process never ends. As such, when the five-year facilities master plan 2014-2018 has been adopted, FCPS should then commence a re-evaluation of the plan in light of current and future needs. These reviews should occur as often as a new need arises, but not less than annually.

While the process for developing and maintaining a five-year facilities master plan can be complex and intricate for very large school districts, an effort should be made to keep the process uncomplicated in the case of FCPS. The following essentials should be included in Plan development and maintenance:

Goal-setting Around Four Priorities

Planners must address four critical factors throughout the planning and design process: quality, educational program, budget and time.

Before the planning process begins, FCPS should decide which of these four priority areas is most important:

- financial constraints
- time constraints
- educational specifications (facility programs)
- quality

For example, if FCPS is having financial problems, then budget may cause FCPS to follow a certain path to its end. Likewise, if time is a constraint, then FCPS staff and county elected officials must consider that quality and educational specifications may have to take a back seat – yet not to the extent of total neglect. It would be advisable, instead, that key personnel address all four of these factors when considering compromises on the needs of the educational program.

Goal-setting for the five-year facilities master plan should include the following:

- Recommend priorities and strategies concerning proposed projects, student and faculty stations, that will meet the facility needs and educational goals of FCPS.
- Conduct a thorough review, analysis, and evaluation of data that relate to facilities. This should include any needed updates of facilities condition, and of the contents of educational specifications. This process will enable understanding of the issues that require resolution.
- Continue gathering data and prepare a project plan of action. The project plan of action should identify projects and their priorities, define the scope, budgets and construction/renovation schedules. This will help to coordinate the financial and project phase issues.
- Provide a process that includes and involves all stakeholders: community, schools, administrators, the school board, the county board of supervisors, and other pertinent agencies of government.
- Develop implementation guidelines for the five-year facilities master plan and the project plan of action.

The Facilities Master Plan Team

The superintendent should establish a facilities master plan team within the current framework of committees. It is advised that the team be a subcommittee of the leadership team. Membership should consist of the superintendent, the chief financial officer, the supervisor of testing and planning, the supervisor of maintenance, and the safety and security manager. The CFO should report to the superintendent all activities of the facilities master plan team. The superintendent, in turn, should keep the school board abreast of all developments concerning facilities planning.

This team should also include an external advisory/resource board consisting facilities and real estate experts, demographers, educators, and other stakeholders in the community. The team

should guide the facilities planning, design and construction effort of FCPS, and focus especially on educational philosophy, financing, and facilities needs.

Initially, team meetings should be conducted not less frequently than every two weeks. This will speed the process and focus the membership on those issues that are being researched, developed or contemplated. As the entire process becomes more routine, the meetings may occur monthly and occasionally more or less frequently as needed.

It may be valuable to include members from other local and state government agencies on the team. Other school divisions have found that by partnering with non-educational agencies during the planning process, it is often possible to develop school facilities that provide for other needs and activities in the community, thus increasing prospective facilities use revenue, and a greater value of the facilities to the community.

It is crucial that the school board and the board of supervisors are in communication throughout the planning year leading up to the development of a facilities budget. Consequently, the school board and the board of supervisors should use a suitable current method, or devise a new method whereby the two entities may remain in strong communication as the elements of the facilities master plan are developed. For example, the main line of communication could proceed between the school board president and the chairperson of the board of supervisors, or between the superintendent and the county administrator. Another method that has worked in other school divisions is the creation of a master plan executive committee consisting of the school board president and the chairperson of the county board of supervisors, with the school superintendent and the county executive as their key executive staff. Many other variations are possible and may be considered.

Community Meetings

Authentic community engagement instills a sense of ownership within a community, which is a key factor in sustaining school improvement efforts. Community input is essential in any five-year facilities master planning process. It is advised that the team conduct a series of “open forum” meetings, around the county, encouraging community participation. Initially, there should be at least three rounds of meetings in strategic locations that maximize the potential for community involvement. For a resource list on community participation in school planning, see http://www.edfacilities.org/rl/community_participation.cfm.

During the first round of meetings, the planning process should be explained, goals and objectives presented, and community input solicited on the educational needs of the community. Included in this appraisal should be discussions eliciting information about all types of special education needs (remedial, disability-assisted, advanced placement, etc.) of students, and whether these needs are currently being met.

During the second round of meetings, the community should be apprised of the data collection efforts to date, the current status of FCPS school facilities, and the demographic data affecting the master plan.

The third round of meetings should present the five-year facilities master plan, including the facilities condition assessment, the project plan, the implementation plan, and the financing plan. Any recommendations to construct new facilities, abandon existing facilities, or consolidate two or more facilities should be explained in detail at this meeting. Sufficient time should be allotted to ensure full community awareness of the impact of all plan recommendations.

As there may be considerable community discussion regarding the proposed project plan and financing plan, follow-on meetings may be held to address these concerns.

Professional Consultant

The Team should hire, as soon as possible, a professional firm of planners, architects and engineers to prepare the initial five-year facilities master plan.

The professional firm should develop a profile of the implications of the FCPS educational goals for its facilities. The firm should propose actions that will help achieve these goals.

The firm should look at the impacts of current and projected enrollment vis-a-vis the capacity of the existing facilities. Data that may be included are demographics, floor plans of school buildings, and enrollment data from the previous school year.

The firm should assess the physical condition of the schools, along with any additional school-related buildings owned by FCPS. The data collected should be building by building, with as much detail as possible. FCPS already has an excellent database showing building condition, and much of this information merely needs to be updated rather than generated from scratch. Whatever data are compiled during the assessment should be used to analyze the facility's ability to meet the educational goals of FCPS.

The firm should also review historic budgets, major construction costs and costs of renovations. These data should be collected in any convenient form that is available. An analysis of current project budgets, including any shortfalls or overages, should be made as they relate to the ability of FCPS and individual schools to meet educational goals.

Sample Food Services Manual

Table of Contents

TITLE	Page
A. GENERAL INFORMATION	
The Child Nutrition Lunch Program	
Child Nutrition Participation	
Public Relations	
Chain of Command	
B. PERSONNEL	
Staffing	
Requirements for new employees	
Assignments/Food Service Employees	
Standard Procedure for Filling Absences	
Payroll Information	
Employee Location Information	
Food Handler's Card	
Salary Deductions	
Dress Code	
Dress Codes – Fingernails	
Dress Codes – Hair Nets	
Exception to Dress Codes	
Duty Hours	
Break Times	
Smoking Break Policy	
Phone Calls	
Meals	
Employee Evaluations	
Termination for Cause	
Voluntary Termination	
Mileage Reimbursement	
Temporary Kitchen Closure	
Employee Leaving Work without Authorization	
Retirement Benefits	
Retired Employees Working Part Time	
Employee Illness	
C. MEAL REQUIREMENTS	
The School Lunch Pattern	
The School Lunch Breakfast Program	
The School Breakfast Pattern	
Free and Reduced Price Meal Program	
Serving Second Helpings	
Serving Milk	

Competitive Foods Law
The After-School Snack Program

D. SANITATION AND SAFETY

Hazard Analysis of Critical Control Points (HACCP) Program
Badly Dented Cans
Sample Tray
Analysis of Food Samples
Food Temperatures
Thawing Foods
Cooling Potentially Hazardous Food Items
Storage of Hazardous Non-Food Items
Unused or Returned Food from Students
Condemnation of Food
Warewashing Procedures
Fire Safety
Gum Chewing and Eating
Unauthorized Personnel in the Food Prep. Area
Employee Hand Care

E. QUALITY CONTROL

Kitchen Monitoring
Product Evaluation
Maximum Storage Times for Food Items
Storage of Leftovers

F. FOOD PRODUCTION AND STORAGE

Work Schedules
Food Production
Maintaining Food Production Records
Making Menu Changes
Serving Lunch in an Emergency Situation
Standardized Recipes
Tray Service
Serving Adults
Giving Students Adequate Time to Eat
Offering Sack Lunches to Students
Serving a Child without Money
Sale of Extra Food Items
Sale of Extra Non-Food Items
Handling Special Dietary Needs – Disabled Students
Food Allergies
Use of Commodities

G. PURCHASING AND STORAGE

Ordering Food
Receiving Deliveries
Storage Areas
Protection of Food and Paper Goods

H. RECORD KEEPING

HACCP (Hazard Analysis of Critical Control Points) Program
Manager Record responsibility
Local Records and Accountability
Student Account Sales and Collections
Inventory Adjustment Forms

Reporting Accidents

I. SECURITY

Hard Keys

Entrance after School Hours

J. CASHIERING

Counting Cash Received in Registers

Purchasing Items by Students with Negative Balances

Serving Homeless Students

Use of Petty Cash

POS Register Problems

Serving Alternate Lunch to Elementary Students Who Owe Money

K. EQUIPMENT

Care and Maintenance

Requesting Equipment Repairs

L. MISCELLANEOUS

Food Leaving School

Gifts

Awards Banquets

Managers Conducting Kitchen Staff Development

Transferring Food Items form One School to Another

Pest Control

Extra Duty Pay

M. ADDITIONAL PROGRAMS

Summer Feeding Program

N. CARE AND USE INSTRUCTIONS FOR EQUIPMENT

Introduction

Ranges

Steam-Jacketed Kettle

Refrigerators

Can Openers

Hot Food Tables

Three Compartment Sink

Disposals

Food Mixers

Convection Oven

Food Slicer

Combi Ovens

Peer Comparisons

**Exhibit C-1
Overview**

School Division	End-of-Year Membership Count	Percentage Students with Disabilities	Percentage Economically Disadvantaged	Total Number of Schools
Greene County	2,904	13.3%	39.4%	5
King George County	4,094	11.8%	32.0%	5
Louisa County	4,601	16.6%	47.9%	6
Madison County	1,826	9.8%	38.2%	4
Orange County	5,009	9.3%	46.0%	9
Warren County	5,316	11.6%	41.3%	8
Peer Division Average	3,958	12.1%	40.8%	6
Fluvanna County	3,736	17.2%	29.9%	5

Source: 2011-12 VDOE Superintendent's Annual Report, VDOE 2010 Enrollment Reports, VDOE School Report Cards.

**Exhibit C-2
2012 teacher staffing levels**

School Division	Elementary Teaching Positions	Secondary Teaching Positions	Students per Classroom Teacher	
			Grades K-7	Grades 8-12
Greene County	157.4	90.9	12.1	10.9
King George County	164.3	125.5	15.1	12.4
Louisa County	232.8	139.3	12.1	12.0
Madison County	100.8	55.6	10.7	12.0
Orange County	232.3	122.2	13.4	14.8
Warren County	227.3	167.3	14.2	12.3
Peer Division Average	185.8	116.8	12.9	12.4
Fluvanna County	148.0	131.4	15.3	10.5

Source: 2011-12 VDOE Superintendent's Annual Report.

Exhibit C-3
2012 sources of revenue/school operating funds

School Division	Sales and Use Tax	Federal Funds	State Funds	Local Funds	Other
Greene County	\$ 2,833,881	\$ 2,322,544	\$ 12,880,635	\$ 11,725,598	\$ 833,240
King George County	\$ 3,789,544	\$ 3,878,198	\$ 14,791,494	\$ 11,849,547	\$ 871,856
Louisa County	\$ 4,583,659	\$ 6,155,070	\$ 13,373,392	\$ 28,781,890	\$ 7,141,989
Madison County	\$ 1,904,946	\$ 2,144,417	\$ 5,659,673	\$ 8,162,113	\$ 798,039
Orange County	\$ 4,608,135	\$ 5,679,341	\$ 16,760,698	\$ 17,578,823	\$ 1,159,162
Warren County	\$ 5,496,399	\$ 4,335,815	\$ 17,540,992	\$ 19,278,332	\$ 1,633,544
Peer Division Average	\$ 3,869,427	\$ 4,085,898	\$ 17,540,998	\$ 19,278,338	\$ 1,633,550
Fluvanna County	\$ 3,235,471	\$ 2,761,145	\$ 14,786,156	\$ 14,187,608	\$ 1,297,440

School Division	Sales and Use Tax	Federal Funds	State Funds	Local Funds	Other
Greene County	9%	8%	42%	38%	3%
King George County	11%	11%	42%	34%	2%
Louisa County	8%	10%	22%	48%	12%
Madison County	10%	11%	30%	44%	4%
Orange County	10%	12%	37%	38%	3%
Warren County	11%	9%	36%	40%	3%
Peer Division Average	8%	9%	38%	42%	4%
Fluvanna County	9%	8%	41%	39%	4%

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-4
Cost per pupil**

School Division	2011-12	2010-2011	2009-10
Greene County	\$ 9,783	\$ 9,661	\$ 9,901
King George County	\$ 8,420	\$ 8,628	\$ 8,324
Louisa County	\$ 11,646	\$ 10,108	\$ 10,162
Madison County	\$ 9,560	\$ 9,628	\$ 9,757
Orange County	\$ 8,373	\$ 8,325	\$ 8,764
Warren County	\$ 8,549	\$ 8,974	\$ 8,932
Peer Division Average	\$ 9,389	\$ 9,221	\$ 9,307
Fluvanna County	\$ 9,153	\$ 9,249	\$ 10,030

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-5
School-based staff per 1,000 students**

School Division	End-of-Year Average Daily Membership Grades K-7	End-of-Year Average Daily Membership Grades 8-12	Staff per 1,000 Students			
			Principals and Assistant Principals	Teachers	Instructional Assistants	Others
Greene County	1,905.2	993.7	4.1	83.4	25.7	6.5
King George County	2,476.8	1,549.4	2.7	70.3	15.8	4.1
Louisa County	2,809.9	1,667.3	3.9	81.0	19.7	5.9
Madison County	1,078.6	667.6	3.2	86.2	21.0	8.0
Orange County	3,111.6	1,806.8	3.3	69.1	9.5	8.7
Warren County	3,219.1	2,057.5	3.8	73.2	18.0	5.1
Peer Division Average	2,433.5	1,457.1	3.5	77.2	18.3	6.4
Fluvanna County	2,266.8	1,378.2	3.4	75.1	14.4	6.4

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-6
Instructional personnel**

School Division	End-of-Year Membership Count	Instruction			
		Administrative Count	Technical and Clerical Count	Instructional Support Count	Other Professional Count
Greene County	2,904	4.1	21.7	0.0	2.3
King George County	4,094	3.0	23.0	5.0	4.0
Louisa County	4,601	6.1	29.0	4.2	1.1
Madison County	1,826	3.0	12.8	0.0	0.0
Orange County	5,009	7.4	29.5	2.0	0.0
Warren County	5,316	1.1	43.0	10.6	0.0
Peer Division Average	3,958	4.1	26.5	3.6	1.2
Fluvanna County	3,736	6.4	10.6	2.1	0.4

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-7
Administrative, attendance, and health personnel**

School Division	Administrative, Attendance, and Health		
	Administrative Count	Technical and Clerical Count	Other Professional Count
Greene County	9.0	6.5	7.6
King George County	6.5	2.5	6.5
Louisa County	11.5	6.0	16.0
Madison County	8.0	2.5	5.0
Orange County	6.0	7.2	13.0
Warren County	9.0	6.0	12.0
Peer Division Average	8.3	5.1	10.0
Fluvanna County	8.0	7.0	1.8

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-8
Technology personnel**

School Division	Technology		
	Administrative Count	Technical and Clerical Count	Instructional Support Count
Greene County	1.0	1.4	0.0
King George County	1.0	5.2	0.0
Louisa County	1.0	7.0	0.0
Madison County	1.0	1.4	0.0
Orange County	1.0	7.8	0.0
Warren County	1.0	7.0	0.0
Peer Division Average	1.0	4.9	0.0
Fluvanna County	0.5	5.7	0.0

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-9
Transportation personnel**

School Division	Transportation			
	Administrative Count	Technical and Clerical Count	Other Professional Count	Trades, Labor, and Service Count
Greene County	1.0	1.2	0.0	55.0
King George County	1.0	1.0	0.0	62.0
Louisa County	1.0	1.3	1.2	108.5
Madison County	0.0	1.0	1.0	46.0
Orange County	1.0	1.9	0.0	84.6
Warren County	1.0	2.0	0.0	87.3
Peer Division Average	0.8	1.4	0.4	73.9
Fluvanna County	2.0	0.0	0.0	51.5

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-10
Operations and maintenance personnel**

School Division	Operations and Maintenance			
	Administrative Count	Technical and Clerical Count	Other Professional Count	Trades, Labor, and Service Count
Greene County	0.0	0.0	0.0	23.0
King George County	1.0	0.0	0.0	33.0
Louisa County	1.0	1.0	0.0	46.0
Madison County	0.0	0.0	0.0	7.0
Orange County	1.0	0.9	0.0	48.3
Warren County	1.0	1.0	0.0	71.7
Peer Division Average	0.7	0.5	0.0	38.2
Fluvanna County	1.0	0.9	0.0	29.0

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-11
2012-13 free and reduced lunch**

School Division	School Nutrition Program Membership Count	Total Free Lunches	Percent Free Lunches	Total Reduced Lunches	Percent Reduced Lunches	Percent Free/Reduced Lunches
Greene County	3,056	921	30.1%	224	7.3%	37.5%
King George County	4,249	1,149	27.0%	161	3.8%	30.8%
Louisa County	4,794	1,764	36.8%	439	9.2%	46.0%
Madison County	1,818	576	31.7%	122	6.7%	38.4%
Orange County	5,047	1,855	36.8%	449	8.9%	45.7%
Warren County	5,495	1,874	34.1%	323	5.9%	40.0%
Peer Division Average	4,076	1,356	32.8%	286	7.0%	39.7%
Fluvanna County	3,775	885	23.4%	231	6.1%	29.6%

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-12
Graduates by diploma type**

School Division	Total Count							Total Graduates and Completions 2011-12
	Standard Diploma	Advanced Studies Diploma	Special Diploma	Certificate of Program Completion	GED Certificate	GAD Diploma	Modified Standard Diploma	
Greene County	89	100	1	0	5	0	1	196
King George County	157	149	7	1	2	0	7	328
Louisa County	136	202	10	2	0	0	8	361
Madison County	52	89	5	1	1	0	0	148
Orange County	197	163	1	6	0	1	8	381
Warren County	164	238	18	6	0	0	4	430
Peer Division Average	133	215	7	2	1	0	5	307
Fluvanna County	87	174	4	0	5	0	8	283

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-13
Graduates by continuing education plans**

School Division	Percentages of Total					
	Attending Two-Year Colleges	Attending Four-Year Colleges	Other Continuing Education Plans	Employment	Military	No Plans
Greene County	35.2%	37.2%	4.1%	19.9%	3.1%	0.5%
King George County	19.5%	41.2%	4.3%	8.2%	8.2%	18.6%
Louisa County	31.3%	35.7%	2.5%	27.4%	3.1%	0.0%
Madison County	21.0%	43.2%	8.1%	12.8%	4.1%	10.8%
Orange County	40.4%	22.8%	6.8%	20.7%	7.6%	1.6%
Warren County	31.9%	38.1%	8.8%	16.3%	3.5%	1.4%
Peer Division Average	29.9%	36.4%	5.8%	19.2%	4.9%	5.5%
Fluvanna County	28.6%	42.8%	3.5%	17.0%	7.4%	0.7%

Source: 2011-12 VDOE Superintendent's Annual Report.

**Exhibit C-14
Dropout percentage**

School Division	Grades 8-12 Total Membership Count	Total Dropouts Count	Dropout Percentage
Greene County	1207	8	0.7%
King George County	1977	20	1.0%
Louisa County	2177	14	0.6%
Madison County	855	2	0.2%
Orange County	2354	36	1.5%
Warren County	2545	27	1.1%
Peer Division Average	1,852	18	0.9%
Fluvanna County	1744	5	0.3%

Source: 2010-11 VDOE Superintendent's Annual Report.

D Recommendations and Commendations

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
Chapter 2	Divisional Administration						
2.1	The board and superintendent process the board agenda jointly with input from staff and share it electronically, saving time and resources.						
2.2	The FCPS school board has a robust process for reviewing and updating policies.						
2.3	Discontinue maintenance of hard copies of the policy manual.	\$0	\$0	\$0	\$0	\$0	\$0
2.4	The board and superintendent work to maintain professional relationships with the board of supervisors for the benefit of the division and community.						
2.5	Strengthen the board's relationship with the countywide leadership program, and encourage and promote the participation of leaders within FCPS, both staff and students.	(\$500)	(\$500)	(\$500)	(\$500)	(\$500)	(\$2,500)
2.6	Improve the division's central office organization and document it.	\$0	\$0	\$0	\$0	\$0	\$0
2.7	Formalize the decision making process through an operational definition, regulation, and procedure so it is clear, concise, and understood throughout the division.	\$0	\$0	\$0	\$0	\$0	\$0
2.8	Develop the necessary departmental manuals to guide staff, internal and external customers, and maintain a level of consistency and constancy.	\$0	\$0	\$0	\$0	\$0	\$0
2.9	The board has adopted an effective comprehensive plan with strategic priorities, developed with input from staff and the community and incorporating Deming's Total Quality Model including the Plan, Do, Check, Act process.						
2.10	Utilize research on what makes an effective school board.	\$0	\$0	\$0	\$0	\$0	\$0
2.11	Require every department to develop a continuous improvement based upon the same model used by the schools, which includes industry recognized standards of performance and best practices.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
2.12	Expand the data provided to the board to include the fiscal impact of the ADM variance.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		(\$500)	(\$500)	(\$500)	(\$500)	(\$500)	(\$2,500)
Chapter 3	Educational Service Delivery						
3.1	Add staff positions in curriculum and instruction.	(\$37,500)	(\$75,000)	(\$75,000)	(\$75,000)	(\$75,000)	(\$337,500)
3.2	FCPS ensures teachers have ample student performance data to make appropriate curricular and instructional decisions.						
3.3	Implement processes and procedures for holding classroom teachers accountable for using data to adjust curriculum and re-design instruction.	\$0	\$0	\$0	\$0	\$0	\$0
3.4	FCPS is commended for principals' efforts as instructional leaders in their buildings.						
3.5	FCPS adopted and implemented the Academic Expectations Handbook.						
3.6	FCPS is commended for decisions that improved services of the alternative education program.						
3.7	Develop and implement a comprehensive division-wide process for curriculum review based on student performance data that ensures horizontal and vertical alignment and a system of monitoring and accountability.	\$0	\$0	\$0	\$0	\$0	\$0
3.8	FCPS has many collaborative opportunities for teachers.						
3.9	Identify the PLC and teacher collaborative practices and implementation procedures that have the greatest impact on student achievement and teacher buy-in within the division, then share division-wide.	\$0	\$0	\$0	\$0	\$0	\$0
3.10	Implement division-wide lesson planning expectations based on research protocols and recorded on a common planning document.	\$0	\$0	\$0	\$0	\$0	\$0
3.11	There has been an increased inclusion of special education students in collaborative opportunities.						

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
3.12	Review the literature and define the expectations for implementation of the co-teaching, and develop and adopt clear and concise process and procedures to define the teaching arrangement.	(\$3,600)	\$0	\$0	\$0	\$0	(\$3,600)
3.13	Review, update, and standardize RTI processes and procedures so implementation is uniform to meet intervention services to all students.	(\$6,000)	(\$6,000)	(\$6,000)	\$0	\$0	(\$18,000)
3.14	The division works to provide effective services to its ESL students.						
3.15	Implement the gifted program with fidelity.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		(\$47,100)	(\$81,000)	(\$81,000)	(\$75,000)	(\$75,000)	(\$359,100)
Chapter 4	Human Resources						
4.1	The three employees who currently perform HR duties and responsibilities are commended for their exemplary work in the areas of personnel as measured by the praise and expressions of appreciation that were shared with the consulting team.						
4.2	Create one full-time professional HR position.	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)	(\$40,000)	(\$200,000)
4.3	Discontinue the extended service opportunities for retired FCPS employees.	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
4.4	Place all personnel file folders in fire-resistant and waterproof cabinets which are located in a room away from public access that can be kept locked during both work and evening hours.	(\$12,000)	\$0	\$0	\$0	\$0	(\$12,000)
4.5	Update systematically all job descriptions to ensure that they accurately reflect job functions and comply with applicable FLSA laws.	\$0	\$0	\$0	\$0	\$0	\$0
4.6	Provide an online employee handbook.	\$0	\$0	\$0	\$0	\$0	\$0
4.7	Create a plan to increase the number of teachers in FCPS who become National Board Certified Teachers or otherwise demonstrate excellence in teaching.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
4.8	FCPS is commended for maintaining an exceptionally low turnover rate in all employee groups.						
4.9	Develop a comprehensive division-wide professional development master plan.	\$0	\$0	\$0	\$0	\$0	\$0
4.10	Develop and publish salary schedules for all pay groups and rework the existing ones to ensure equity in compensation for employees in the same work group and to inform them of their current pay status in relation to other work groups.	\$0	\$0	\$0	\$0	\$0	\$0
4.11	Rework the salary schedule for teachers to provide equal, incremental compensation as they advance on the salary schedule and reduce the maximum step to 25 years.	\$226,235	\$226,235	\$226,235	\$226,235	\$226,235	\$1,131,175
4.12	Raise full benefits eligibility to a minimum of six hours and pay part-time benefits to part-time employees.	\$85,940	\$85,940	\$85,940	\$85,940	\$85,940	\$429,700
4.13	Ensure that all supervisors of employees eligible for overtime pay and compensatory time off are complying with federal FLSA rules.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$360,175	\$372,175	\$372,175	\$372,175	\$372,175	\$1,848,875
Chapter 5	Facilities Use and Management						
5.1	Closing the two older elementary schools and consolidating students into existing facilities significantly reduced old facility inventory and improved the educational environments for young students.						
5.2	FCPS now accommodates all students in permanent facilities which are more economical, more energy efficient and more secure than mobile classrooms.						
5.3	Establish a succession plan and hire the successor to the current maintenance supervisor with a minimum three-month overlap.	(\$28,250)	\$0	\$0	\$0	\$0	(\$28,250)
5.4	Establish a consolidated division-wide custodial organization.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
5.5	Establish one groundskeeper position to maintain the grass, shrubs, and planting beds around the schools.	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)	(\$34,100)	(\$170,500)
5.6	Prepare a permanent, ongoing facilities master plan and master planning process with a 10-year strategic horizon and a five-year working horizon of specific cost objectives.	\$0	\$0	\$0	\$0	\$0	\$0
5.7	Obtain new enrollment projections each year.	(\$12,500)	(\$200)	(\$200)	(\$200)	(\$200)	(\$13,300)
5.8	FCPS fire safety equipment is maintained in accordance with adopted codes and best engineering practices.						
5.9	Work with the county to transfer some maintenance responsibilities.	\$0	\$0	\$0	\$0	\$0	\$0
5.10	Expedite implementation of the Munis EnerGov Asset Management Software.	\$0	\$0	\$0	\$0	\$0	\$0
5.11	Develop a comprehensive facilities database and maintain accurate records on all facilities.	\$0	\$0	\$0	\$0	\$0	\$0
5.12	Standardize custodial training among all custodians.	\$0	\$0	\$0	\$0	\$0	\$0
5.13	The new Fluvanna High School was designed and built to energy efficient standards leading to the LEED certification level silver.						
5.14	Add energy conservation measures whenever an addition, renovation, or any type of capital improvements project is contemplated.	\$0	\$0	\$0	\$0	\$0	\$0
5.15	Conduct an annual fire and general safety inspection to generate a list of items that need correcting.	(\$2,000)	(\$2,000)	\$0	\$0	\$0	(\$4,000)
5.16	Improve security of school access.	\$0	\$0	\$0	\$0	\$0	\$0
5.17	Develop a plan to equip all schools with state-of-the-art high resolution security cameras on the interiors and on school grounds.	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal	(\$76,850)	(\$36,300)	(\$34,300)	(\$34,300)	(\$34,300)	(\$216,050)
Chapter 6	Financial Management						
6.1	FCPS has monthly meetings for school bookkeepers that enable them to discuss common issues and solve common problems.						

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
6.2	Evaluate finance staff workloads and redistribute workloads so that all payrolls are assigned to one employee and all accounts payable duties are assigned to another employee.	\$0	\$0	\$0	\$0	\$0	\$0
6.3	Authorize finance to release payments to vendors and employees without prior board approval and develop easily understood reports to the board showing payments that were made.	\$0	\$0	\$0	\$0	\$0	\$0
6.4	Work with the county treasurer to improve the timeliness of deposit or transfer of funds received by the county treasurer to division funds.	\$0	\$0	\$0	\$0	\$0	\$0
6.5	Develop written guidelines for the consistent use of purchase orders and only require their preparation when necessary to submit to vendors.	\$0	\$0	\$0	\$0	\$0	\$0
6.6	Require food service invoices to be consolidated by program staff prior to submitting to finance and add coding so that expenditures can be entered into the financial management system by location.	\$0	\$0	\$0	\$0	\$0	\$0
6.7	Account for food service funds and extended education program funds separately.	\$0	\$0	\$0	\$0	\$0	\$0
6.8	Ensure recommendations included in activity fund audit reports are communicated to school bookkeepers and any corrective actions needed are addressed.	\$0	\$0	\$0	\$0	\$0	\$0
6.9	Review processes used to compile data for the annual school report to improve completeness and accuracy of data.	\$0	\$0	\$0	\$0	\$0	\$0
6.10	FCPS has a budget development process that is open and provides opportunities for public input.						
6.11	The division has continued to improve its budget document, which provides all interested parties with easily understood information.						

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
6.12	Improve the division's budget calendar by adding more detail and identifying the responsible party for the activity.	\$0	\$0	\$0	\$0	\$0	\$0
6.13	Prepare routine financial reports for the food services program that show the results of operations.	\$0	\$0	\$0	\$0	\$0	\$0
6.14	The division requires direct deposit of employee pay, which increases efficiency and reduces processing cost.						
6.15	Ensure that when a new financial management system is implemented it has the capability to track leave balances for employees that work in more than one program.	\$0	\$0	\$0	\$0	\$0	\$0
6.16	Develop written and standardized guidelines for all division activity funds to help ensure that funds are administered properly.	\$0	\$0	\$0	\$0	\$0	\$0
6.17	Establish plans and timelines for moving elementary activity funds to Manatee software.	\$0	\$0	\$0	\$0	\$0	\$0
6.18	Require schools to submit monthly activity fund reports that include bank reconciliations to finance in a timely manner and guidelines for finance staff to review reports for internal control purposes.	\$0	\$0	\$0	\$0	\$0	\$0
6.19	Establish timelines and make detailed plans for converting to Munis financial management software.	\$0	\$0	\$0	\$0	\$0	\$0
6.20	Develop a board policy to help ensure the protection of the division's investment in its fixed assets.	\$0	\$0	\$0	\$0	\$0	\$0
6.21	Develop a user manual for school and department staff to assist them in completing finance and budget related duties and provide periodic training.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
6.22	Develop desk procedures for the important duties performed by each staff member of finance and cross-train them in each other's duties.	\$0	\$0	\$0	\$0	\$0	\$0
6.23	Develop a procedures manual for activity funds and train staff on the standard approved processes for managing activity funds.	\$0	\$0	\$0	\$0	\$0	\$0
6.24	Identify all critical functions performed by finance staff and document procedures in a comprehensive procedures manual.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$0	\$0	\$0	\$0	\$0	\$0
Chapter 7	Transportation						
7.1	The division has a schedule for 30-day bus inspections and placing reminder cards on all bus dash boards.						
7.2	FCPS has a bus driver carpool that saves bus miles and fuel.						
7.3	Change bus driver pay from a daily/per route basis to an hourly basis and develop an hourly salary scale.	\$304,146	\$304,146	\$304,146	\$304,146	\$304,146	\$1,520,730
7.4	Develop performance measures and benchmarks for transportation operations and use results to identify where improvements should be made.	\$0	\$0	\$0	\$0	\$0	\$0
7.5	Improve communications between the transportation supervisor and those preparing IEPs when those IEPs have irregular transportation needs.	\$0	\$0	\$0	\$0	\$0	\$0
7.6	Consolidate transportation operations by transferring the bus shop supervisor under the management of the transportation supervisor.	\$0	\$0	\$0	\$0	\$0	\$0
7.7	The division requires a documented transportation plan for all students who ride buses.						
7.8	The FCPS transportation department maintains sufficient internal desk procedures that enable new employees to begin performing assigned duties with little difficulty.						

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
7.9	Include in the Parent Resource Guide the responsibilities of parents who require a parent/guardian to be present before their child can be dropped off and actions that will be taken for repeated noncompliance.	\$0	\$0	\$0	\$0	\$0	\$0
7.10	Complete a bus driver handbook and train staff.	\$0	\$0	\$0	\$0	\$0	\$0
7.11	Develop written guidelines for reimbursement of extracurricular bus trips, document and communicate the amount of costs that should be reimbursed, and ensure reimbursements are processed.	\$14,130	\$14,130	\$14,130	\$14,130	\$14,130	\$70,650
7.12	Implement formal criteria for determining whether a park-out is beneficial to the division.	\$0	\$0	\$0	\$0	\$0	\$0
7.13	The division is beginning to use the automated bus routing software.						
7.14	Explore working with the county to more fully implement automated bus routing software.	\$210,000	\$210,000	\$210,000	\$210,000	\$210,000	\$1,050,000
7.15	Adjust bell times and establish dual routes for school buses. Reduce need for annual bus purchases by three.	\$338,436	\$338,436	\$338,436	\$338,436	\$338,436	\$1,692,180
7.16	The division has organized and orderly bus boarding.						
7.17	Develop online training for bus drivers and substitute drivers to supplement and enhance existing face-to-face training.	\$0	\$0	\$0	\$0	\$0	\$0
7.18	FCPS has a clean, organized, and well maintained bus repair shop.						
7.19	Develop a bus replacement policy and identify funding needs for budget planning.	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)	(\$443,425)	(\$2,217,125)
Subtotal		\$423,287	\$423,287	\$423,287	\$423,287	\$423,287	\$2,116,435

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
Chapter 8	Technology Management						
8.1	The FCPS technology director is a knowledgeable decision-maker, who has the expertise and leadership skills needed to effectively investigate, integrate, and manage all aspects of technology within the division.						
8.2	The FCPS technology department provides support and technical assistance across the division while being responsible for improvements to infrastructure, upgrades to hardware and software, pursuing training on their own, providing enhancements to their assigned product areas, and troubleshooting.						
8.3	Add at least one tier 2 systems administrator to spread the responsibilities more evenly across the tier.	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$325,000)
8.4	The FCPS technology director secured funds for professional development related to the Student Information Systems software.						
8.5	Budget for ongoing professional development of technology department staff.	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)	(\$4,000)	(\$20,000)
8.6	Return at least two of the four required ITRT positions to exclusively focus on supporting teachers in instructional technology excellence.	\$0	\$0	\$0	\$0	\$0	\$0
8.7	FCPS has developed a robust educational technology plan that is aligned with the state-required SOQ and the division's multi-year strategic plan.						
8.8	The FCPS superintendent and staff are commended for recognizing the importance of planning and strategizing together to ensure that instructional technology keeps pace with the 21st century classroom.						
8.9	The technology department has implemented a Microsoft System Center Configuration Manager 2012 and active directory 2012, thus allowing centralized management of computers, deployment of software updates, and login security.						
8.10	Contract with a vendor to set the priority and configure the packets.	(\$4,000)	\$0	\$0	\$0	\$0	(\$4,000)
8.11	Develop a comprehensive disaster recovery plan that will ensure the ability to resume critical data functions in the event of a catastrophic loss.	\$0	\$0	\$0	\$0	\$0	\$0
8.12	Fund a technology replacement plan.	\$0	\$0	\$0	\$0	\$0	\$0
8.13	Support and expedite the implementation of Munis.	(\$35,000)	(\$35,000)	\$0	\$0	\$0	(\$70,000)
8.14	Create standard operation procedures for mission critical areas in technology.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
8.15	Track the acquisition and deployment of all technology assets, once Munis is implemented.	\$0	\$0	\$0	\$0	\$0	\$0
8.16	FCPS has implemented a strong Internet connection and network.						
8.17	FCPS recognizes the importance of educational technology integration for teachers and students and is providing the tools to meet the challenge of a 21st century education in its high school.						
8.18	Upgrade the wireless networks in all buildings except the high school (which already has the latest technology).	\$0	\$0	\$0	\$0	\$0	\$0
8.19	Inventory all instructional technology across the division and survey the teachers and staff regarding utilization.	\$0	\$0	\$0	\$0	\$0	\$0
8.20	Investigate redundant backup communication connection options for the high school and integrate this into the disaster recovery plan.	(\$7,820)	(\$5,820)	(\$5,820)	(\$5,820)	(\$5,820)	(\$31,100)
8.21	Develop a “student technical assistants” program to assist with basic trouble shooting and device deployment.	\$0	\$0	\$0	\$0	\$0	\$0
8.22	The FCPS technology department has implemented an online help desk work order system.						
8.23	FCPS has initiated a teacher laptop replacement cycle.						
	Subtotal	(\$115,820)	(\$109,820)	(\$74,820)	(\$74,820)	(\$74,820)	(\$450,100)
Chapter 9	Food Services						
9.1	Conduct an internal salary study for managers and cafeteria workers and adjust salaries accordingly.	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)	(\$8,554)	(\$42,770)
9.2	Increase the division’s food service productivity.	\$14,378	\$14,378	\$14,378	\$14,378	\$14,378	\$71,890
9.3	Develop a written charge policy and procedure that sets limits on the number and amount of charges and implement My School Bucks.	\$10,000	\$4,000	\$4,000	\$4,000	\$4,000	\$26,000
9.4	Develop a comprehensive policy and procedures manual for food service that covers all areas of food preparation and presentation.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/Commendation	Estimated (Costs) or Savings					Total Five-Year (Costs) or Savings
		2014-15	2015-16	2016-17	2017-18	2018-19	
9.5	FCPS has closed campuses at all schools during meal times, accommodates all students with adequate time to eat and provides enough seating.						
9.6	Develop an annual budget for food services with input from the food service supervisor. Use the budget as a management tool.	\$0	\$0	\$0	\$0	\$0	\$0
9.7	Develop and provide the food service supervisor with profit and loss statements, budget variance reports, and other financial reports used regularly for financial management.	\$0	\$0	\$0	\$0	\$0	\$0
9.8	Continue to improve the financial footing of the food service program.	\$0	\$0	\$0	\$0	\$0	\$0
9.9	Increase use of automation in FCPS kitchens.	(\$400)	(\$1,000)	(\$1,000)	(\$1,000)	(\$1,000)	(\$4,400)
9.10	FCPS is in compliance with the Virginia regulations governing competitive food sales in school lunchrooms and allows the revenue from the sale of beverages in the vending machines located in the lunchrooms to accrue to the food service program account.						
9.11	Food services will be the first department in FCPS to install My School Bucks and utilize its many benefits for parents to pay for and monitor their child's accounts.						
9.12	Develop outreach strategies at the division and school levels to ensure all eligible households submit applications for meal benefits.	\$25,295	\$88,534	\$177,068	\$177,068	\$177,068	\$645,033
9.13	Develop strategies for increasing student participation rates for each school.	\$17,051	\$34,102	\$51,153	\$51,153	\$51,153	\$204,612
9.14	FCPS has met the requirements to be certified and in compliance with the requirements of the HHFKA and is receiving the additional 6-cent reimbursement.						
	Subtotal	\$57,770	\$131,460	\$237,045	\$237,045	\$237,045	\$900,365
	Total savings	\$1,345,611	\$1,419,901	\$1,525,486	\$1,525,486	\$1,525,486	\$7,341,970
	Total costs	(\$744,649)	(\$720,599)	(\$683,599)	(\$677,599)	(\$677,599)	(\$3,504,045)
	Total net savings and costs	\$600,962	\$699,302	\$841,887	\$847,887	\$847,887	\$3,837,925